Vital and Health Statistics

Health of Our Nation's Children

Series 10: Data from the National Health Interview Survey

No. 191

This report describes the health of children 17 years of age and under in the United States. The report discusses overall health status, prevalence of psychological disorders, access to health care and rates of health care utilization, characteristics of other family-controlled health variables, and family structure as it relates to health. All estimates are shown according to age of child as well as selected demographic and socioeconomic characteristics of the family and health characteristics of the child. Particular attention is paid to age-, race-, and income-related disparities in the health of children. Estimates are based on data from the 1988 National Health Interview Survey on Child Health.

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Health of Our Nation's Children

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Introduction

In many respects, the state of children's health in the United States has improved steadily over the past several decades. Many indicators of child health are at more favorable levels than ever before because of developments such as immunization programs, more stringent safety regulations, advances in biomedical technology, and Medicaid and other programs that make medical care available to low-income families (1). Many communicable diseases that previously affected large numbers of children—such as polio, diphtheria, and measles—have been virtually eliminated or greatly reduced in frequency. Further, the infant mortality rate—the proportion of babies who die within the first year of life—has declined substantially over the past 40 years, as has the postneonatal mortality rate—deaths of infants 28 days to 1 year old (2,3).

However, despite these signs of progress, there were several negative trends in children's health and safety during the 1980's. For example, progress made in the 1970's in increasing the proportion of women getting adequate prenatal care stalled in the 1980's. Currently, 25 percent of American babies are born to women who received inadequate prenatal care; among black Americans, 40 percent of babies are born without such care (4). Furthermore, no progress was made in the 1980's in reducing the proportion of low birthweight babies (those born weighing less than 5–1/2 pounds) and this proportion has increased among black Americans in recent years (4,5). Progress in reducing the infant mortality rate also slowed during the 1980's, due not only to inadequate prenatal care and low birthweight babies, but also to the increase in cases of pediatric AIDS (1). The U.S. infant mortality rate in 1990 of 9.2 deaths per 1,000 live births is higher than that in 23 other industrialized countries (6). Injuries have emerged as the major cause of childhood mortality, morbidity, and disability (7). Furthermore, there have been continued disparities along racial and income-related lines in child health indicators such as infant mortality, lead poisoning, unintentional injuries, and rates of immunization and hospitalization (8,9).

One of three broad goals for the health of the U.S. population described in the report *Healthy People 2000* states that ''Achieving a healthier America depends on significant improvements in the health of population groups that now are at highest risk of premature death, disease, and disability'' (10, p. 46). Adhering to this goal, the current report provides an overview of the health of American children in the late 1980's. This report focuses on factors that may contribute to premature morbidity and mortality of children, particularly age, income, and race and/or ethnicity; access to health care; and other family controlled health-related variables.

The report consists of five sections. First, children's overall health status is examined, including the relationship between health status and sociodemographic characteristics such as age, gender, urbanicity, and region of residence. These data are shown in tables 1–2. Second, the prevalence of a variety of children's psychological problems (developmental delay, learning disability, and emotional or behavioral problems) are examined in relation to health status and economic and demographic factors. These data are shown in tables 3–6. In the third section, children's access to health care and their utilization of health care services are explored according to similar factors. Data for this section appear in tables 7–13. Fourth, other family-controlled health variable characteristics are examined. Particular attention is paid to indicators of seatbelt use, periodic dental visits, routine bedtime, exposure to cigarette smoke in the home, and population subgroup differences. These data appear in tables 14–17. As health care for low income families is important in the current health care policy debate, each of these four sections focuses on disparities in children's health status that may be attributable to economic differences. Extensive evidence (9,11) indicates that poor children face a variety of health problems, due in part to demographic factors such as high rates of female-headed households; income levels that are inadequate to purchase quality housing, food, and medical supplies; unhealthy lifestyles; and receipt of poor quality health care services. Finally, the family structures in which children live are considered in the fifth section. It includes an examination of whether children's health status, use of health care services, and other family-controlled health variables differ according to their family configuration. This fifth section draws on data from tables 1–17. Numbers shown in table 18 are denominators for tables 1–17.

Selected multivariate analyses of the data also were done using a technique called Multiple Classification Analysis. Multivariate analyses present certain issues of interpretation that were judged to be beyond the scope of this descriptive

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NOTE: The authors gratefully acknowledge the technical assistance of Felicia LeClere in the preparation of this report.

report, so they are not discussed fully. However, for interested readers, the principal results of these analyses are briefly summarized in the text and the results of each analysis are shown in tables I–III in appendix I.

The data on which this report is based were collected in the 1988 National Health Interview Survey on Child Health (NHIS-CH), which is described in appendix I. These data provide a nationally representative picture of U.S. children ages 17 and under in 1988. A number of reports on various health topics using the 1988 NHIS-CH have already been published (12–18). This report provides a comprehensive overview of the data set. In addition to this and other published reports, data from the NHIS are available on microdata tapes. Public use data are available for the 1988 NHIS-CH as well as for many other special health topics collected as supplements to the National Health Interview Survey. Information on these tapes is available from the National Center for Health Statistics, Division of Health Interview Statistics, Systems and Programming Branch, 6525 Belcrest Road, Hyattsville, MD 20782.

Highlights

- In 1988, 51.7 percent of the nation's children had a ''favorable'' health status—excellent health with no limiting conditions. Fewer black children (41 percent) received favorable health ratings than either white (54 percent) or Asian (55 percent) children, as did fewer Hispanic (45 percent) than non-Hispanic children (53 percent).
- Seven and one-half percent of children less than 18 years of age were in fair or poor health or had an activity limitation. This proportion increased with age; only 3 percent of infants, but 9 percent of children ages 12–17 years, received this negative health status rating.
- Children's overall health rating was positively associated with higher levels of parent education, greater family income, and older maternal age at first birth.
- Nineteen and one-half percent of U.S. children ages 3–17 years, or nearly 10.2 million children, have had a developmental delay, learning disability, or an emotional or behavioral problem. Boys were more likely than girls to have one or more of these disorders (23 percent compared with 16 percent, respectively).
- Despite the fact that developmental, learning, and emotional disorders do not necessarily involve medical problems, children who exhibited such difficulties were also likely to have more health problems than other children or to be limited in their daily activity.
- Access to health care was strongly associated with socioeconomic status. Children in the lowest income bracket (family income of less than $10,000) were two to four times less likely to have medical insurance and a particular provider of sick care as children in the highest income bracket ($50,000 or more). They were also less likely than more economically advantaged children to have had routine care in the past 2 years and to have a regular source of routine medical care. Children in the lowest income bracket also had more than twice as many hospital visits as children in families earning $50,000 or more—91 versus 38 episodes per 1,000 children in the previous year.
- Age-related trends were apparent in other family-controlled health variables. Younger children were more likely to wear seatbelts or other car restraints and were less likely to live in a household with a smoker. However, older children were more likely to have been to the dentist in the past 2 years and to have a regular bedtime.
- Growing up with two continuously married parents had clear advantages for children's overall health status. Fifty-five percent of children living with both biological parents were in excellent health with no limiting condition, and children living with single mothers (42 percent) or with remarried mothers and a stepfather (49 percent) were much less likely to be in such favorable health. Children living with both biological parents were also the least likely to be reported as having had developmental delay, learning disabilities, or emotional or behavioral problems (15 percent), compared with 25 percent of children living with single mothers and 28 percent of those living with their remarried mother and a stepfather.

Sources and limitations of data

The estimates presented in this report are based on data from the National Health Interview Survey (NHIS), a continuous nationwide household interview survey conducted by the National Center for Health Statistics (19). Each week, interviewers trained and employed by the U.S. Bureau of the Census interview a probability sample of the civilian noninstitutionalized population of the United States, obtaining information about the health and demographic characteristics of each member of the households included in the NHIS sample.

The NHIS consists of two parts: (a) a basic health and demographic questionnaire that remains the same from year to year and is completed for each household member and (b) special health topics questionnaires that vary from year to year and may be completed for all members or a sample member of each household. The 1988 NHIS included the following special health topics: acquired immunodeficiency syndrome (AIDS) knowledge and attitudes, medical device implants, occupational health, alcohol, and child health. The last of these topics, the National Health Interview Survey on Child Health (NHIS-CH) was designed by the National Center for Health Statistics (NCHS) and was sponsored by the National Institute of Child Health and Human Development (NICHD) and the Maternal and Child Health (MCH) Division of the Health Resources and Services Administration. Advice on questionnaire content was obtained from these agencies and from a panel of nongovernment researchers convened by Child Trends, Inc., a private research organization. Interviewing was conducted by the same permanent staff of trained interviewers and supervisors employed by the Bureau of the Census for the basic health and demographic National Health Interview Survey.

The 1988 Child Health Survey covers the following topics: the exact relationship between the child and every other household member; child care arrangements; contact with biological parents who live outside the household; the biological mother's marital history; residential mobility; circumstances surrounding birth; prenatal care; accidental injuries; chronic medical conditions and their effects; smoking in household (current and during pregnancy); preventive health care and habits; behavior in school; need for or use of psychological counseling; behavior problems; and sleep habits. Most of the items on the NHIS-CH questionnaire were asked for all children; some, such as child care arrangements, were asked only for children in specified age groups.

The total interview sample for 1988 for the basic health questionnaire consisted of 47,485 households containing 122,310 individuals. The total response rate was 95 percent. The NHIS-CH sample consisted of one child 17 years of age and under from each NHIS household including children in that age range. Interviews were conducted in 95 percent of the households identified as including children in the eligible age range. Thus the overall response rate for the NHIS-CH was 91 percent, the product of the two 95 percent response rates. Interviews were completed for 17,110 children 0–17 years of age. Data for each sample child were provided by the adult household member who was reported to know the most about the child's health. This was usually the child's mother.

A description of the survey design, methods used in estimation, and general qualifications of the NHIS-CH data are presented in appendix I. Because the estimates shown in this report are based on a sample of the population, they are subject to sampling errors. Appendix I contains a discussion of the methods used in estimating variances for the NHIS-CH sample. In addition, appendix I includes a description of the multivariate analyses methods used and summary tables of the results.

Appendix II contains definitions of terms used in this report. The 1988 NHIS questionnaire, including the NHIS-CH questionnaire and all other special health topics, is included in the 1988 edition of the annual NCHS report, ''Current Estimates From the National Health Interview Survey''(20).

In this report, persons for whom valid responses were not available for individual items were excluded from both the numerators and denominators of percents and percent distributions. This exclusion of unknowns implicitly assumes that the response distribution for the missing values is the same as for the responses that were provided. Item nonresponse for the variables included in this analysis was generally low—less than 5 percent.

Selected topics

Children's health status

Most children in the United States were reported to be in excellent health—in 1988, 53 percent of all U.S. children 17 years of age and under were so rated by their parents. (Ninety-six percent of respondents to the NHIS-CH were parents and the term ''parents'' is often used interchangeably with the term ''respondents'' in this report.) Moreover, only 6 percent of children were reported to have a condition that limits their ability to perform daily activities (including school). When these two indicators are taken together, 51.7 percent of the nation's children had a ''favorable'' health status, that is, they were in excellent health and had no limiting condition.

The health status rating described above provides a useful indicator with which to track trends and disparities in the health of U.S. children. Data from the NHIS-CH (shown in table 1) indicate that children's overall health status did not differ according to age or sex of child. However, health status did differ along demographic, geographic, and economic lines for certain subgroups of the population.

There were striking differences in the proportion of children in excellent health when comparing race and ethnicity. Smaller proportions of black children (41 percent) received favorable health ratings than either white (54 percent) or Asian (55 percent) children. Additionally, Hispanic children were less likely to receive a favorable health rating than non-Hispanic children. The relatively poor health status of other than white children was similarly revealed in analyses of the NHIS from 1985 through 1987 for the overall U.S. population (21).

Although rates were fairly homogenous for children in the four geographic regions, differences related to metropolitan residence were evident: 53 percent of children in metropolitan areas, compared with 47 percent of those in nonmetropolitan (rural) settings, were rated favorably.

Shifting the focus from the proportion of children rated *favorably*, one can also combine the rating of the child's health and the activity limitation measure to produce an indicator of *negative* health status. Using this strategy, 3 percent of all children were rated in ''fair'' or ''poor'' health, and 7.5 percent of children were either in fair to poor health *or* were limited in their daily activities. Table 2 shows a definite age trend for this indicator; only 3 percent of infants, but 9 percent of children ages 12–17 years, received a negative health status rating. Unlike the positive health rating, there were no notable subgroup differences related to metropolitan residence on this poor health indicator.

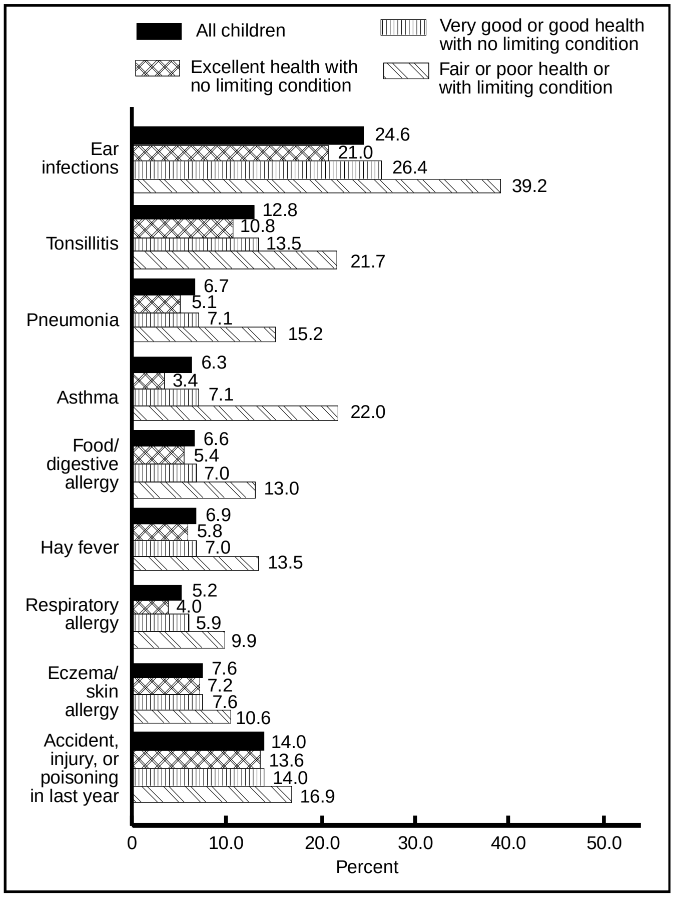

Figure 1. Percent of children 0–17 years of age who have had selected childhood diseases, by child's health and activity limitation status: United States, 1988

While the proportion of children in fair to poor health or with a limitation were generally similar across racial and ethnic groups, there was one notable exception. Only 3 percent of Asian children received this negative rating, compared with 7 percent and 10 percent of white and black children, respectively.

Children rated in fair to poor health or with an activity limitation were also more likely to have a variety of childhood health problems. For example, as shown in figure 1, such children were approximately twice as likely as children in excellent health with no limitations to have ever had ear infections, tonsillitis, food or digestive allergies, hay fever, or respiratory allergies. Children with a negative health rating were three or more times as likely to have had pneumonia or asthma as children with a positive health rating. Furthermore, this negative indicator was also associated with acute incidents. Figure 1 shows that 17 percent of children in fair to poor health or with an activity limitation had an accident, injury, or poisoning in the last year, compared with a smaller proportion (14 percent) of children rated in better health.

Health status and socioeconomic status

Children's overall health rating was strongly associated with a variety of socioeconomic measures, including parental education, family income, and maternal age at first birth. Not surprisingly, children were more likely to be in excellent health with no limiting conditions the more economic and noneconomic resources there are in the family, and the later the child's birth occurred in the mother's life. Thus, despite the overall positive picture of the health of U.S. children, large disparities existed among certain subgroups. Table 1 shows that while approximately 68 percent of children whose parents had some graduate school education were rated favorably, only 35 percent of children whose parents had less than a high school education were so rated. The picture for family income was quite similar, with higher proportions of children from upper income families (64 percent) than from very low income families (35 percent) being rated in excellent health with no limitations. Furthermore, 57 percent of children born to women who were 30 years of age and over at the time they gave birth to their first child received good ratings, compared with only 36 percent of children born to teens. It is important to note that not only extremely disadvantaged children fared poorly in these comparisons. The proportion of children in favorable health declined steadily with each lower socioeconomic indicator. In support of the pattern seen for this global indicator of health, Starfield (22) noted that poor children were two to three times as likely as nonpoor children to have had health problems that include delayed immunization, lead poisoning, and severely impaired vision.

Further evidence of the health difficulties associated with economic disadvantage was revealed in comparisons of children above and below the Federal poverty line according to receipt of Aid to Families with Dependent Children (AFDC). Children who were poor were far less likely than children who were not poor to be rated in excellent health with no disabilities or problems—37 versus 55 percent respectively. However, the proportion of poor children in favorable health did not differ according to whether they received AFDC. This suggests that AFDC did not have an advantageous effect on children's overall health status. Similarly, children on Medicaid were less likely (36 percent) than children with private health insurance (55 percent) or children with no insurance (47 percent) to have received a favorable health status rating. Because children without medical insurance fared better in this comparison than children on Medicaid, parents without health care coverage may be less informed as to their children's actual health status, or that despite their coverage, Medicaid recipients lived in more economically deprived circumstances, elevating their exposure to health risks.

Like favorable health, the negative health status measure (fair or poor health or with an activity limitation) is sensitive to the presence of economic and noneconomic resources. The fewer the socioeconomic resources, the greater the proportion of children in fair or poor health or with a limiting condition (table 2).

Multivariate analyses

Although bivariate relationships have been discussed, multivariate analyses were also conducted to control simultaneously for the effects of age, sex, and race of the child, welfare and/or poverty status, parents' education, region, metropolitan residence, family structure and size, and income on children's health. Separate analyses were conducted for the favorable and negative ratings. These analyses show that when considered together, the strongest sociodemographic predictor of a child being in excellent health with no limiting conditions was the educational level of the parents, with children of better educated parents more likely to be rated in favorable health (table I). Family income and race had a strong effect on children from higher income families, and white children were most likely to be rated favorably. The influence of family structure and of welfare and/or poverty status on children's health were sharply reduced when other factors were controlled.

The negative health status rating (fair to poor health or with a limiting condition) was predicted by a different set of child and family characteristics. Age of the child and family income were the most important predictors of poor health status, with older children and those with lower family incomes being most likely to be so rated (table I). In fact, the effect of age was not reduced by controlling for other factors. Both analyses also show that, when income and other socioeconomic factors were controlled, differences between poor children who did and did not receive AFDC diminished and were not significant.

Children with developmental, learning, and emotional or behavioral disorders

When assessing the health of U.S. children, it is important to examine the prevalence of psychological as well as physical disorders. Such disorders, called the ''new morbidity of childhood,'' are increasingly common. Tables 3–5 examine the overall prevalence and prevalence for selected subgroups of developmental delay, learning problems, and emotional or behavioral problems, respectively. The nature and prevalence of each of these disorders are described below individually, before relating their combined prevalence to measures of children's health status and demographic and socioeconomic characteristics.

In designing the NHIS-CH, it was intended that questions concerning ''developmental delay'' would identify children with limited or temporary deficits in growth or development and those with severe and long-lasting deficits such as Downs syndrome. Examination of data from the NHIS-CH shows that overall, 4 percent of children 17 years of age and under were reported by their parents to have had a delay in their growth or development. The term ''learning disability'' was intended to identify children who have exceptional difficulty learning to read, write, or do arithmetic, rather than children with perceptual or emotional problems or speech or hearing disorders. Seven percent of parents said their children have one or more of these disabilities. Finally, a question related to ''emotional or behavioral problems'' was meant to identify children with common psychological disorders such as attention-deficit hyperactivity disorder or depression, as well as more severe conditions such as autism (14). Thirteen percent of children ages 3–17 years old have had an emotional or behavioral problem lasting 3 or more months or that required psychological treatment. (Questions about learning disabilities and emotional or behavioral problems were not asked for children under the age of 3 years.)

When these three items were combined to include all children with any one of these disorders, 19.5 percent of U.S. children ages 3–17 years, or nearly 10.2 million children, were so classified (table 6). Therefore, these conditions were among the most prevalent chronic conditions of childhood and adolescence (22).

There was also a marked increase with age in the proportion of children with one of these psychological disorders. Only 8 percent of children 3–4 years of age, compared with more than three times that number of adolescents, were characterized by a developmental delay, learning disability, or an emotional or behavioral problem. This increase was not surprising given that many learning disabilities and emotional or behavioral problems frequently are not recognized until children reach school age and are identified by teachers.

Current data confirms previous research that showed a differential vulnerability to psychological disorders for boys as compared with girls (23,24). Overall, 23 percent of boys, compared with 16 percent of girls, exhibited one or more of these disorders (table 6). Several researchers (24,25) suggest that boys' greater susceptibility to such problems may be explained partly by a greater vulnerability to psychosocial stressors in their environments, such as family conflict, divorce, and parental psychopathology.

Moreover, according to parental reports, higher proportions of white children have had one or more of these disorders than Asian or black children. The prevalence of developmental disorders, learning disabilities, and emotional or behavioral problems did not differ for Hispanic and non-Hispanic children. As noted by Zill and Schoenborn (14), it is surprising that the prevalence of these disorders was not higher for minority children because black and Hispanic families have several characteristics (such as lower parental education and income levels and over-representation among low-birthweight babies and children in special education classes) that suggest they are at risk for *higher* rates of psychological disorders. Zill and Schoenborn attribute the lower rates reported by black and Hispanic parents in the NHIS-CH data to underreporting because of unfamiliarity with wording used in the interview, lower literacy levels, and differential recall of past events. Other factors may be an unwillingness to seek mental heath services or inaccessibility to health care professionals who would identify psychological disorders. The issue of disparities in access to health care services is addressed more fully below.

Health status

Although developmental, learning, and emotional disorders do not necessarily involve medical problems, children who exhibited such difficulties were also likely to have had more health problems than other children or to have been limited in their daily activity. Among children ages 3–17 years who have had a developmental, learning, or emotional problem, one in five was described in fair to poor health or with a limiting condition (figure 2). This rating was significantly greater than the 1 in 20 children without such problems who received this negative health status rating. The pattern is similar when each of the disorders is examined individually, so that approximately 3 times as many children who have had a developmental, learning, or emotional problem received the negative health rating compared with children who did not have the disorder. For example, 30 percent of children 0–17 years of age with a developmental delay had a negative health status, compared with 7 percent of other children.

Socioeconomic factors

Previous literature suggests that children from families with fewer economic resources are at greater risk for a variety of psychological disorders (9,26). Explanations range from

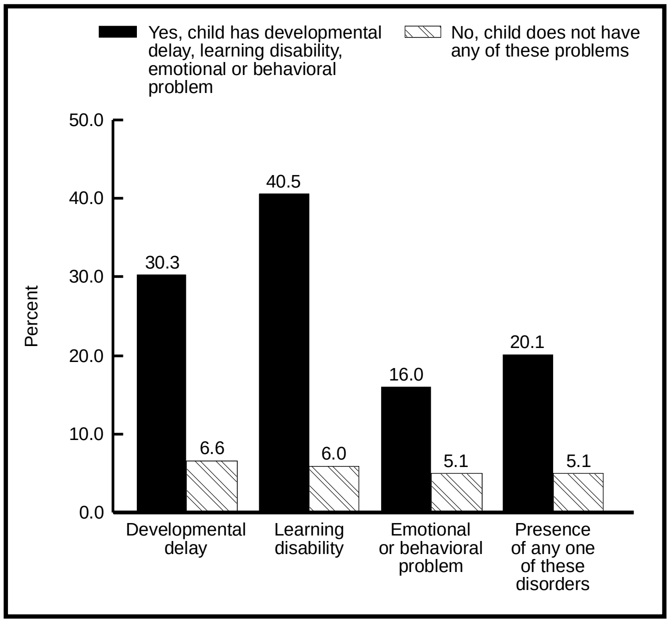

Figure 2. Percent of children 3–17 years of age in fair to poor health or with an activity limitation, by presence of developmental delay, learning disability, or emotional or behavioral problems: United States, 1988

differences in the quality of the home environment (for example, intellectual stimulation and environmental hazards (11,19)) to differences in the medical care received by lower income families. Zill and Schoenborn used NHIS-CH data to examine income- and education-related differences for developmental delay, learning disability, and emotional or behavioral problems. They concluded that ''learning disabilities showed the greatest variation across these groups, emotional or behavioral problems showed significant but smaller fluctuations, and developmental delays showed practically no socioeconomic variation'' (14, p. 9). Tables 3–5 illustrate these findings. Table 6 shows that when the three types of problems were combined, there was a small but consistent trend that children from families with the lowest income levels and whose mothers were teenagers when they first gave birth had higher prevalence rates than children from families in the highest income bracket and whose mothers delayed childbearing until their 30's, respectively. The combined prevalence of such disorders did not, however, differ for children in families with the highest versus the lowest levels of education. Given that parents with lower levels of education may be less aware of their children's problems and less able to understand the questions related to these problems (as described above), it is possible that the differences shown in tables 3–6 underrepresented the actual socioeconomic disparities in the prevalence of these disorders.

Access to and utilization of health care

When assessing the health status of children, one must also pay attention to the availability and use of health care services. Early and sustained use of health care is often critical in identifying, treating, and monitoring childhood conditions. However, children's access to and use of health services depend on a complex array of factors, including both financial and nonfinancial barriers to care.

Access to health care

The third national goal outlined in *Healthy People 2000* was to ''achieve access to preventive services for all Americans'' (10). This goal is to be accomplished under three interrelated priorities: health promotion, health protection, and preventive services. Each of these priorities requires widespread access to necessary health care services. Four indicators of children's access to health care were examined from the NHIS-CH. Each indicator is presented below. In addition, the overall proportion of U.S. children at risk for each indicator is shown. Differences in these proportions according to demographic factors, health status and socioeconomic status, are discussed in subsequent sections.

- Parent respondents were asked about current health insurance coverage for their children. In 1988, 76 percent of children ages 0–17 years were covered by private health insurance, 10 percent were covered by Medicaid, and 14.5 percent were not covered by any form of insurance (table 7). Other analyses (27) indicate that almost one in four children (23 percent) were without health insurance at some point during the year.
- When asked how long it had been since the child's ''last visit to a clinic, health care center, hospital, doctor's office or other place for routine care,'' only 1 percent of parents reported that their child had *never* seen a doctor for routine care, and 16 percent had not had routine medical care in the last 2 years (table 8).
- For the majority of children who had *ever* received routine care, respondents were also asked whether there is a particular clinic, health center, hospital, doctor's office, or other place where the child usually receives routine health care. As shown in table 9, 1 in 10 children ages 0–17 years had no usual place for routine care (this included the 1 percent who had never received such care). This proportion was somewhat greater than the 6 percent of children under 17 years of age who lacked a regular source of care reported in the 1980 National Medical Care Utilization and Expenditure Survey (28), indicating that increasing proportions of U.S. children were at risk in this area.
- Finally, parent respondents were asked whether there is a specific place where the child usually receives medical care when sick or injured, and if yes, whether there is a particular person (at this place) who the child usually sees. While only 7 percent of children did not usually receive sick care from a particular *place*, for example, a doctor's office or clinic (not shown), 19 percent did not usually receive sick care from the same *provider* (table 10). Note that table 10 includes children WITH a regular source of sick care, but *no particular provider* of this care, as well as children WITHOUT a regular source of sick care who have *no particular provider* of this care.

Lack of health insurance may be the most important barrier to health care. Because it reduces the out-of-pocket costs of health care, health insurance can enhance access both to preventive care such as immunizations and to services for acute and chronic health problems (27). Thus, lack of health insurance must be viewed as an important cause of children's inadequate access to other forms of care discussed in this section. The receipt of health care from a regular source is also of particular concern to health policy because such continuity of care is associated with level of service use and satisfaction with care received (29) and is an indicator of continuity of care, which can affect the quality of care received (27). Furthermore, many of those without a particular source of sick care may rely inappropriately on hospital emergency rooms for this type of care when a provider who is familiar with the child's medical history would be more beneficial and cost effective (30).

There were noteworthy differentials according to the age of a child in terms of the receipt of routine care in the past 2 years and in the reliance on a particular source for such care. In general, younger children received routine care more frequently than older children. Only 4 percent of infants had not received routine care in the past 2 years, compared with 22 percent of children ages 12–17 years. Moreover, 7 percent of children less than a year old had no regular source for routine medical care, while this was true for 13 percent of children ages 12–17 years. These age-related disparities were not apparent for reliance on particular providers for sick care.

No sex differences in access to health care services were evident, but there were consistent patterns of disparity according to region of residence and race. Children living in the South and the West were generally at a disadvantage in their access to health care in comparison with children from the Northeast and Midwest. For example, table 7 shows that greater proportions of children living in the South (19.1 percent) and West (18.2 percent) had no health insurance than those living in the Northeast (8.8 percent) or Midwest (9.5 percent). Similarly, children in the Northeast and Midwest were more likely to have had a regular source for routine care (table 9) and a particular provider of sick care (table 10) than children in other regions. Children living in the Northeast were at an advantage compared with all other regions in terms of routine medical care in the past 2 years (table 8).

According to urbanicity of residence, children living in nonmetropolitan areas were the least likely to have received routine medical care in the past 2 years—20 percent in rural areas did not receive care versus 14 percent in both inner cities and suburbs. Klerman (31) cites living in a nonmetropolitan area as one of the primary nonfinancial barriers to adequate health care, partly due to shortages of providers and difficulties with transportation. However, perhaps because the options are more limited in rural areas, children outside of metropolitan areas were more likely than children in metropolitan statistical areas to have had a regular source for routine medical care (table 9) and a particular provider of sick care (table 10) when they did receive it. For example, table 10 shows that 16 percent of children in rural areas did not have a particular provider of sick care, while 20 percent of children living in metropolitan areas lacked such a provider.

There were some notable disparities in access to health care among different racial and ethnic groups. Native American and Hispanic children were at particular risk. Native American children were at least twice as likely as other racial groups to lack health insurance—37 percent had no coverage. Moreover, 43 percent of these children had no particular provider for sick care, a much larger proportion than white or Asian children. Compared with white children, those of all other racial groups examined were far less likely to have had a particular provider of sick care. Only 16 percent of white children lacked such a provider, compared with 29 percent of Asian children, 32 percent of black children, and 44 percent of Native American children. Hispanic children also had high rates of noncoverage by insurance—27 percent had no health insurance versus 13 percent of non-Hispanic children. Hispanic children were also less likely than non-Hispanic children to have had a regular source of routine care or a particular provider of sick care.

In contrast to the pattern for other health care variables, children of various racial minority groups were about equally likely to have received routine health care in the last two years as were white children. Furthermore, Hispanics and non-Hispanics were equally likely to have received such care. This pattern suggests that it is the *stability* of care, rather than the frequency with which care is received, that distinguished children in different racial groups. This pattern is further supported by service utilization data described in the next section.

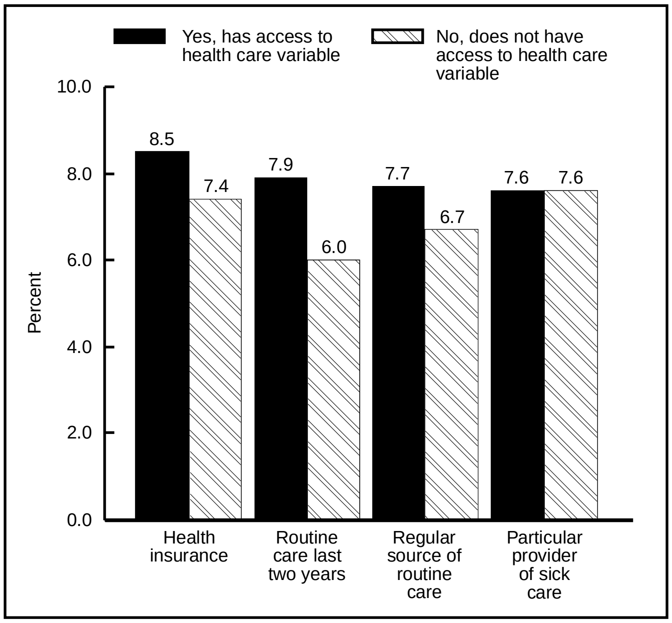

Figure 3. Percent of children 0–17 years of age in fair to poor health or with an activity limitation, by access to health care variables: United States, 1988

Health Status—One would expect that children who have more limited access to health care because they lack medical insurance or a regular provider of care would tend to be in poorer health. However, data shown in figure 3 suggest otherwise. For example, the proportion of children in fair or poor health or with a limiting condition was similar among children who did and did not have health insurance (7.4 and 8.5, respectively), and among children who did and did not have a particular provider of sick care (7.6 percent in each group received the negative health rating). These data may indicate that lacking access to health care services is not necessarily associated with poorer health outcomes. Other data (28) indicate that a majority of persons (of all ages) who lack a regular source of medical care appear to be healthier than those with a regular source. Alternatively, given that the health status rating is based on a parental report, it is possible that parents of children who did not have regular contact with medical professionals were less aware of their child's actual health than were parents with such contact, or that parents were more likely to seek medical care or to secure a regular source of care when their children were exhibiting difficulties.

Socioeconomic status—Much of the current policy debate focuses on improving access to health care among the economically disadvantaged. Given the steadily increasing cost of health care in the United States, it is not surprising that children with fewer economic resources use health care services differently than more economically advantaged children. For example, a number of studies have found that poor children are less likely than nonpoor children to have a physician's office as their usual source of medical care, and that these children tend to contact physicians at a hospital or other site, while nonpoor children make contact in physician's offices or by telephone (9). Moreover, additional research has documented the inadequate supply of health care providers in neighborhoods where poor families live. For example, despite increases in the number of pediatricians in the United States between 1970 and 1985, this increase has not improved access for children on Medicaid, in inner cities, or in rural areas (32).

Data from the NHIS-CH support these findings. Children in the lowest income bracket were 2–4 times less likely to have had medical insurance and a particular provider of sick care than children in the highest income bracket. They were also less likely than more economically advantaged children to have had routine care in the past 2 years and a regular source of routine medical care. It is important to note that, for three of the four indicators examined (insurance coverage, routine care in the past 2 years, and having a regular source for routine care), similar proportions of children in families earning between $10,000 and $20,000 lacked access to health care as children in the lowest income bracket. This suggests that it is not simply the ‘‘poorest of the poor’’ who are in jeopardy, but that many families whose incomes may be slightly above the poverty level are at equal risk (27,33). Similar patterns of decreased access for disadvantaged children emerged when children whose parents had less than a high school diploma were compared with children of highly educated parents, and when children of teenage mothers were compared with children of women who delayed childbearing.

AFDC receipt clearly distinguished children on all indicators examined here—presumably showing the beneficial influence of Medicaid on children's access to health care services. For example, 43 percent of poor, non-AFDC children lacked health insurance, compared with 7 percent of poor children on AFDC. Similarly, 10 percent of poor children on AFDC had not received routine care in the past 2 years, compared with 23 percent of non-AFDC poor children.

Multivariate analyses—Multivariate analyses were conducted to examine the relative contribution of a variety of socioeconomic and demographic factors to the prediction of children's access to health care services. These analyses showed that the most important predictors varied according to the dependent variables of interest (table II). For example, income and welfare/poverty status had the strongest effect on children not having insurance, with children from lower income families and, among poor families, those not receiving AFDC being least likely to have had insurance. However, income was a less important predictor in other analyses. The strongest predictor of children not having a regular source for routine care was region of residence, when other factors were controlled. As described above, children in the Northeast and Midwest were more likely than children in other regions to have such a regular source of care. Region was also an important influence on the receipt of routine care in the past 2 years (with the same regional variation as described above), but age of child was far more important for this outcome. Finally, the pattern for children lacking a particular provider of sick care indicates that race, parental education, and welfare/poverty status were equally important. It is important to note that when other socioeconomic characteristics were controlled, race was not consistently related to the availability of health care services for children. Bivariate differences indicating that minority children were at a disadvantage compared with white children are diminished when other factors are controlled.

Moreover, while bivariate analyses suggest that particular subgroups of children lacked access to both health insurance and medical care, multivariate analyses indicated that different determinants were important for each indicator. These analyses suggest that attempts to remedy disparities in children's access to health care will need to target a broad range of contributing factors.

Service utilization patterns

Three indicators of children's health service utilization are examined in this report for the population as a whole as well as for selected subgroups of children. Parent respondents reported for the previous year on the number of contacts the child had with a physician (including seeing or talking to) and the number of days that an illness or injury kept the child in bed more than half the day (referred to as ‘‘bed days’’). For all children ages 17 years and under, the average number of physician contacts in the previous year was 4.5 (table 11), and the average number of days spent in bed was 4.1 (table 12).

Parents also reported the number of short-stay hospital visits (that is, being a patient in a hospital overnight) experienced by the child. Because the frequency of this last variable was quite low, rates of hospital visits per 1,000 children were examined. In 1988, there was an average of 49.2 hospital visits per 1,000 children, as shown in table 13. As before, utilization rates varied in relation to demographic indicators, health status, and socioeconomic status.

Tables 11–13 illustrate that each of these indicators of service utilization was strongly related to the child's age, with younger children having more doctor visits, more hospital episodes, and more days spent in bed than older children. In fact, infants' average number of doctor visits and hospital episodes were three times the average of children ages 12–17 years. Boys and girls also showed different rates of service utilization with girls spending more days in bed, but boys having more hospital episodes in the previous year. The two sexes did not differ on number of doctor visits.

Minimal variation by race in patterns of service utilization was evident. However, Native American children reported more short-stay hospital episodes than any other racial group—an average of 72 visits per 1,000 children. Given that high numbers of hospital visits may indicate families who rely on hospitals to provide nonemergency medical care, these data are consistent with the fact that Native American children, more than any other racial group, lacked health insurance (table 7) and a particular provider of sick care (table 10). Asian children, on the other hand, had comparatively low rates of service utilization; their parents reported fewer brief hospital visits than any other racial subgroup, fewer doctor visits than white children, and fewer bed days than white or black children.

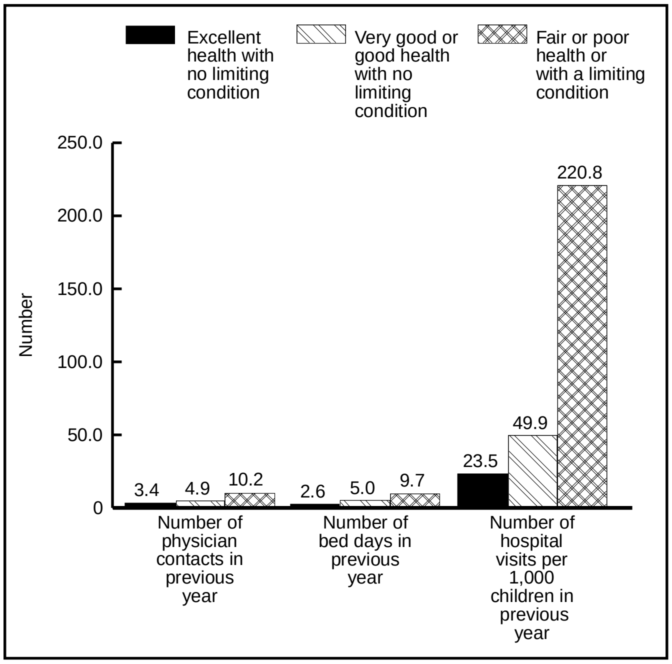

Figure 4. Mean rates of service utilization for children 0–17 years of age, by child's health and activity limitation status: United States, 1988

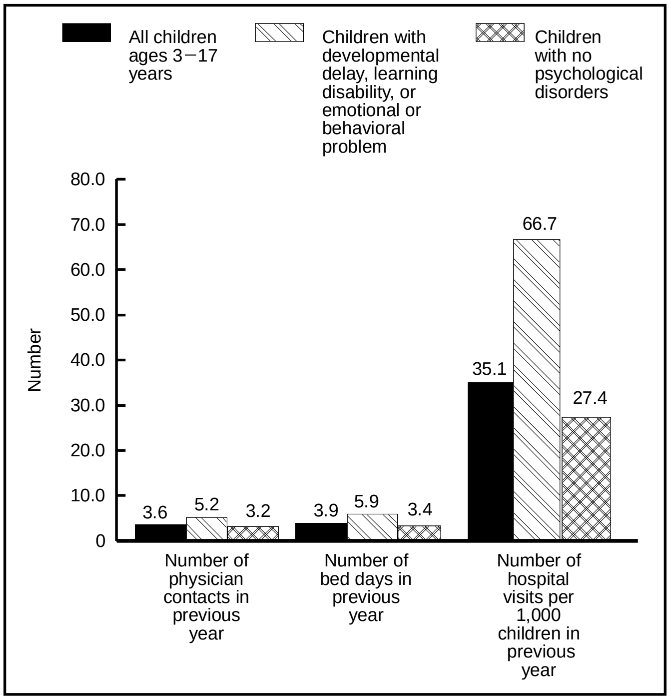

Figure 5. Mean rates of service utilization for children 3–17 years of age, by existence of psychological disorder: United States, 1988

There were generally no differences in utilization patterns related to region of residence or metropolitan residence, with two exceptions. Children in the Midwest and South had far more hospital episodes than children in other regions. This pattern is somewhat consistent with that noted for access to health care (tables 7–10), in which children in the South were more likely to lack access to insurance and to have neither a regular source for routine care nor a particular provider of sick care. Children in rural areas had fewer doctor visits and more short-stay hospital visits than children in MSA's. These data again suggest an inverse relationship between use of doctors and use of hospitals for medical care, in which disadvantaged populations tend to rely on the latter more than the former, and also support previous research noting the lack of primary care physicians available to rural children (32).

Health status—Not surprisingly, children rated in less favorable health tended to have higher rates of health service utilization. For example, figure 4 shows that children in excellent health with no limitation had an average of 3.4 contacts with a physician per year, compared with 10.2 visits per year among children in fair or poor health or who had an activity limitation. An indicator of more intensive service utilization—short-stay hospital episodes—was also highly related to differences in children's health status. The average was 24 episodes per 1,000 children in excellent health with no limiting conditions, compared with almost 10 times that rate—221 per 1,000—among children in fair to poor health or who had a limiting condition.

Like children in fair to poor health or with a limiting condition, children with developmental, learning, or behavioral problems also utilized a disproportionate amount of health care services. For example, children with one or more such problems had an average of 5.2 doctor contacts in the previous year compared with an average of 3.2 physician contacts in the past year for children without such disorders (figure 5). Children with one or more developmental, emotional, or behavioral problems also had more short-stay hospital visits in the previous year than children without such disorders.

Socioeconomic status—Service utilization was less consistently related to indicators of parental socioeconomic status (education, income, and mother's age at first birth) than were measures of access to health care. For example, the number of doctor visits varied only according to parent's education, while the number of bed days varied only according to family income. However, the number of hospital episodes was related to all three indicators of SES, with disadvantaged children showing strikingly higher rates of hospitalization. For example, children in the lowest income bracket had more than twice as many hospital visits as children in families earning $50,000 or more—91 versus 38 episodes per 1,000 children in the previous year. Similarly, less educated parents reported a greater frequency of hospital visits for their children than those with high school diplomas or more. Teenage mothers also reported a higher rate of hospitalizations for their children than those who were older at their first birth (69 versus 42 per 1,000 children, respectively). These data may reflect the inappropriate use of hospitals as primary care facilities among disadvantaged families, as mentioned earlier (30). However, it is also possible that higher rates of hospital visits reflected actual differences in the severity of illnesses or injuries of disadvantaged children, stemming from differences in preventive health practices or in use of routine health services (tables 8–9), or from the higher incidence of unintentional injuries among children living in low income, high risk areas (9).

Moreover, tables 2 and 6 indicate that children from lower SES families have poorer health status and more developmental disorders than other children, suggesting a greater need for health care services in this population than for other children. While these cross-sectional data do not allow an examination of a causal relationship between health status and access to medical care, they do suggest that those most in need of such care were underserved. These data clearly echo the nation's goals for health reform by suggesting the need for increased access to both routine and sick care services for disadvantaged populations as a step toward decreasing disparities in the health status of subgroups of U.S. children.

Other family-controlled health variables

Parents or caregivers have primary responsibility for ensuring children's safety and well-being. Given that injuries are the leading cause of childhood mortality and morbidity, preventive practices in the home are increasingly important for children's health (7). Parents can influence their children's health not only by ensuring that their children receive adequate medical and dental care, but by their own health-related behaviors and by the rules and routines they establish for their children. Four indicators of family-controlled healthfulness were examined with the NHIS-CH:

- An important indicator of a preventive orientation toward children's health and well-being is whether they wear a seatbelt or other car restraint. This practice not only lowers children's likelihood of being seriously injured in automobile accidents, but also may reflect parents' general use of preventive safety measures. Table 14 shows that although most parents reported that their child regularly wore a seatbelt, 30 percent reported that the child rarely or never wore a seatbelt or other car restraint.
- Periodic visits to the dentist are clearly important in promoting and maintaining strong teeth and good oral hygiene. The U.S. Public Health Service's goal is for 90 percent of children entering school programs for the first time to have received an oral health examination (10). Furthermore, information on children's receipt of dental care also provides information about the importance a family attaches to preventive health care. As shown in table 15, the vast majority (82 percent) of U.S. children aged 3–17 years had seen a dentist in the last 2 years. (Parents of children under the age of three were not asked for this information.)
- Routines for bedtimes are a key means by which parents ensure that their children receive proper rest. Eighty-three percent of U.S. children ages 1–17 years had a regular bedtime that was not unusually late or varied from night to night (table 16). For children ages 12 years and under, later than 10:00 p.m. was considered late, whereas for children ages 13–17 years, 11:30 was considered late. (These data were not gathered for children under age one.)
- Indirect exposure to cigarette smoke in the air, known as ''involuntary smoking,'' may be responsible for more than 3,800 cases of lung cancer among nonsmokers each year and for 30 percent of all nonsmoker annual lung cancer deaths. In addition, research consistently demonstrates an increase in respiratory and middle ear diseases among the young children of smoking parents as compared with children of nonsmokers (28). Moreover, children living in a home with a smoker are exposed to examples of unhealthy adult behavior. As shown in table 17, 44 percent of American children ages 17 years and under currently lived in a household with an adult smoker or had lived in such a household in the past year.

None of these family-controlled measures was related to the sex of the child; roughly equal proportions of girls and boys exhibited each indicator. Age-related differences were apparent for each variable considered, but the trends did not uniformly favor older or younger children. Young children had the advantage in terms of car restraints and exposure to involuntary smoke. Only 8 percent of children under one year of age and 13 percent of children 1–2 years of age rarely or never wore a seatbelt in contrast to 40 percent of children ages 12–17 years. This dramatic decrease in seatbelt wearing with age is probably attributable in part to state regulations requiring the use of car seats for young children as well as to the fact that as children grow older, they often ride in cars not operated by their parent or operated by a teenager or themselves.

Exposure to cigarette smoking also increased with age of the child. Thirty-nine percent of children under the age of one year and 45 percent of children ages 12–17 years have an adult smoker in the household. This increasing exposure to smokers in the household as children age may reflect recent increases in awareness of the health risks posed by indirect exposure to cigarette smoking and recent declines in the overall incidence of adults smoking (35). Alternatively, parents may be more cautious about exposing younger children to secondary smoke.

For two other indicators, older children were reported as living in more favorable family-controlled conditions than younger children. Half of all children 3–4 years of age had not been to the dentist in the past 2 years. Many of them quite likely had *never* been to a dentist. In contrast, only 12 percent of children ages 12–17 years had not seen a dentist in 2 years. Similarly, about twice as many younger than older children did not have a regular, early bedtime. Twenty-nine percent of children aged 1–2 years and 27 percent of children aged 3–4 years did not, compared with 14 percent and 13 percent among children aged 5–11 and 12–17 years, respectively.

Some regional differences in these family-controlled measures were evident and favored children living in the Western part of the United States. These children were more likely to wear a seatbelt, less likely to live with an adult smoker, and less likely to have a late or irregular bedtime than children living in any other region. This pattern was also similar in the previous section, which showed that children in the West (and Northeast) were at an advantage relative to other children in terms of access to health care. When patterns of dental care were examined, nearly a quarter of children living in the South had not seen a dentist in the previous two years. The comparable figures for those living in the West, Midwest, and Northeast were lower: 18, 14, and 13 percent, respectively. When differences according to urban residence were examined, children in rural areas were less likely than those in more densely populated settings to wear seatbelts.

When race and ethnicity were considered, the family-controlled conditions of minority children appeared to be less healthy than those of white children. For example, 42 percent of black children and 48 percent of Native American children rarely or never wore a seatbelt when riding in a car, as compared with 28 percent of white children. Black (26 percent) and Asian (22 percent) children were more likely than white children (15 percent) to have late or irregular bedtimes. Furthermore, more black children (24 percent) than white children (17 percent) had not visited the dentist in the past two years. There were also indicators of greater risk for Hispanic children; they were less likely to wear a seatbelt and to have visited the dentist than non-Hispanics.

A different pattern, in which minority children were not always at greatest risk, emerged when children's exposure to cigarette smoke was examined according to race and Hispanic origin. Similar proportions of black and white children had been exposed to a smoker in the past year (47 percent and 44 percent, respectively), while Asian children had much lower rates of exposure. On this indicator, Hispanic children, 39 percent of whom had a smoker in the house, had a slightly lower incidence than did non-Hispanic children, 45 percent of whom had been exposed to cigarette smoke.

Socioeconomic Status

Children from families with lower income, lower parental education levels, or whose mothers were younger at the birth of their first child were at greater risk on each indicator of poor family-controlled conditions than children with greater economic and noneconomic resources. For example, children in the lowest income bracket ($10,000 or less) were the least likely to wear a seatbelt, to have a regular bedtime, to live in a household without a smoker, and to have visited the dentist. In contrast, children in the highest income bracket ($50,000 or more) were at the lowest risk for these indicators. Klerman (9), too, notes that poor families' are more likely to demonstrate unhealthy life styles and to underuse personal health services. It is noteworthy that most of these risk factors in the home environment examined in the NHIS-CH were tied to parental behavior, not to parental resources *per se*. Thus, these data suggest that an adequate health care system must also include a health *education* component, which would teach parents with fewer resources how best to promote their children's health needs, particularly by structuring a healthier and more suitable home environment. Such education could not only detail the risks involved in, for example, exposure to smoking, and failure to maintain working smoke detectors and to use child safety seats, but it could also encourage parents to be sensitive to the age-appropriate needs of different children.

Given that poor children were at greater risk than nonpoor children, it is useful to consider whether receiving AFDC conveys any advantage to the family-controlled conditions of some poor children. On two of the four indicators considered (the proportion of children with late or irregular bedtime and the proportion living with a smoker), children receiving AFDC fared *worse* than poor children not receiving AFDC. However, on a third indicator—the proportion of children who had not seen a dentist in the past 2 years—the pattern was reversed. Twenty percent of children in families receiving AFDC (and 16 percent of nonpoor children) had not seen a dentist in the past 2 years. In contrast, 35 percent of children who were poor, but had not received AFDC, had not visited the dentist in this interval. So while AFDC did not appear to enhance the home environment of poor children via parental behavior, the receipt of Medicaid was likely a pivotal factor affecting utilization of health services. Note that children not covered by any form of medical insurance were the least likely to have visited the dentist—32 percent versus 16 percent of those covered by insurance (table 15).

Multivariate analyses

Multivariate analyses were performed to control for the effects of age and sex of child, race, welfare and/or poverty status, parent's education, region, metropolitan residence, family structure and size, and income on each of the four home environment indicators (table III). The child's age was the strongest predictor of three of the four indexes, so younger children were more likely not to have seen a dentist in the last 2 years and not to have had a late or irregular bedtime. Older children were more likely never or rarely to have worn a seatbelt.

The parent's education was a strong influence on many of these health risks. This factor had the strongest association with a child's living in a household with a smoker, and it was the second strongest predictor (after age) of the child's rarely or never wearing a seatbelt and not receiving recent dental care. In all cases, children with less educated parents were at greater risk than children with better educated parents. Group differences associated with economic conditions (such as income and welfare and/or poverty status) were often sharply reduced by controlling for other factors. This suggests that financial resources *per se* were not directly responsible for differences in the quality of children's home environment, but rather other characteristics of parents such as low education that typically characterized disadvantaged households. Similarly, bivariate differences according to race were less strong in multivariate analyses.

Family structure

There are two reasons to suggest that family structure influences children's health. First, Cherlin (36) and others have suggested that the lower economic resources of single-parent families, together with the absence of another adult in the household, make children in single-parent families particularly susceptible to health risks and inadequate health care.

Second, entry into single-parenthood following parental death or divorce can be a time of particular stress for children (37). Although health consequences of divorce for children have not been widely examined, there is considerable evidence that the transitions characterizing the disruption process (that is, changes in disciplinary practices and loss in income) result in lower academic achievement and personal adjustment among children in the immediate aftermath of divorce (32). When single- versus two-parent families are compared, some researchers (39) have suggested that children in female-headed households may receive lower quality medical care than children in two-parent households. On the other hand, others (33) suggest that because of their increased stress levels, single mothers may be inclined to perceive and *report* poorer health in their children, whether or not the child's health is actually poor.

In 1988, 63 percent of U.S. children aged 17 years and under lived with their biological mother and father. The next largest group of children (19 percent) lived with their biological mother only, 11 percent lived with mothers who were formerly married to the child's father, and 8 percent lived with mothers who had never married. In comparison, only 2 percent of children lived with their biological father only. An additional 10 percent of children lived in stepfamilies: 8 percent lived with their biological mother and a stepfather (or foster or adoptive father) and 2 percent lived with their biological father and a stepmother (or foster or adoptive mother). The remaining children lived with either adoptive parents (1 percent), with grandparents (2 percent), or with other relatives or nonrelatives (4 percent). The following discussion focuses on differences between children in continuously married two-parent families (including biological or adoptive parents), single parent families (both single mothers and fathers), and remarried families (both mothers with stepfathers and fathers with stepmothers). Differences in children's health status and other health indicators relative to family structure are examined. For a more detailed treatment of the relationship between family structure and children's health, the reader is referred to Dawson (17).

Growing up with two continuously married parents had clear advantages for children's overall health status. As table 1 shows, 55 percent of children living with two biological parents were given a favorable health rating (excellent health with no limiting condition) and children living with single mothers (42 percent) or with remarried mothers and a stepfather (49 percent) were much less likely to be in good health. The proportion of children rated in favorable health who were living with single fathers and with remarried fathers and stepmothers (54 percent of each) or who were living with two adoptive parents (56 percent) were similar to that of children living with two biological parents. These findings are consistent with others who have reported that, compared with children in two-parent families, those in mother-headed households are less likely to report their children's health as excellent (40).

Children living with two biological parents were also the least likely to have been reported as having developmental delay, learning disabilities, or emotional or behavioral problems (15 percent), compared with 25 percent of children living with single mothers and 28 percent of those living with their mother and a stepfather, as shown in table 6. However, proportions for children living with a single father (30 percent) and with their remarried father and a stepmother (36 percent) were notably higher. Despite the fact that children living with two adoptive parents were among those with the most favorable overall health status (resembling children living with two biological parents), they too had a higher prevalence of these psychological disorders (36 percent) than children with two biological parents.

There was also a relationship between children's access to and use of health care and the family structure in which they lived. This suggests that children in single-parent families and in stepfamilies had different patterns of access that were less optimal than patterns for children living with two continuously married parents. Children living with two continuously married parents (whether adoptive or biological), perhaps owing to their greater economic resources, were more likely than children living with single mothers to have some form of health insurance (table 7), and to have a regular source of routine care (table 9) and a particular provider of sick care (table 10). Furthermore, in keeping with their relatively poorer overall health status, children living in single mother families had markedly higher rates of brief hospital stays (71 per 1,000 children) than children in any other type of family. (The pattern for single fathers was not consistently poor and in some cases, resembled that of two-parent families.) Angel and Worobey (40), using data from the National Health and Nutrition Examination Survey and the Survey of Income and Program Participation, also report that children in female-headed households are more likely to have been hospitalized at some point in their lives than children in two-parent households. However, despite these obstacles, children living with single parents (mothers and fathers) were no less likely than children in two-parent families to have received routine medical care in the last 2 years (table 8). They also did not differ from such children in their reported number of physician contacts (table 11).

The high hospitalization rates characteristic of children in mother-headed families may signify inappropriate use of these facilities, perhaps as a means for nonemergency health care. Alternatively, given the strong association between income and family structure (41), children in such families may experience more serious medical problems than other children, perhaps due to living in more dangerous neighborhoods or spending less time under adult supervision than children in two-parent families.

Children in stepfamilies generally have greater economic resources than children in single-parent families and thus might be expected to have better access to higher quality health care. However, when children living in stepfamilies are compared with those in two-parent families, there is some suggestion that their access to health care may be even more problematic than children in single-parent families. For example, children in stepfamilies (including those with either a stepmother or a stepfather) were less likely than those in intact, two-parent families to have had a regular source of routine health care, a particular provider of sick care, and to have received routine health care in the last 2 years. Children living with remarried mothers (but not living with remarried fathers) were also less likely to have health insurance coverage. Similarly, children in remarried families had lower rates of physician contacts in the previous year than children living with two biological parents, further indicating lower usage of health care services.

Family structure was related to family-controlled health indicators in diverse ways. Children living with two biological or adoptive parents were most likely to wear a seatbelt and least likely to live with a smoker, suggesting that their parents were modelling and enforcing more healthful behaviors for their children than others. Children living with single mothers were less likely than children in two-parent families (continuously married or remarried) to have a regular bedtime. This lack of regularity may reflect the absence of a second parent to assist the mother in establishing and enforcing routines for the child.

The relationship between family structure and frequency of dental visits was less clearcut, however. For example, children living with two adoptive parents and those living with a father and stepmother were more likely to have seen a dentist in the past two years than children living with two biological parents, single parents, or remarried mothers and stepfathers. In fact, on this indicator the proportion of children living with two biological parents who lacked dental care during this interval resembled that of children in single-mother families.

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List of detailed tables

Table 1. Percent of children 0–17 years of age in excellent health with no limiting condition, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	51.7	56.9	51.8	54.1	50.7	51.0
Sex						
Male	50.7	52.8	50.5	52.6	48.3	52.5
Female	52.7	61.4	53.3	55.6	53.2	49.3
Race						
White	53.9	57.9	53.7	55.6	53.2	53.6
Black	41.0	46.7	43.8	45.4	39.9	38.7
Asian, Pacific Islander	54.6	71.4	48.6	53.1	47.7	62.7
Native American	43.4	*74.4	*76.5	*58.7	33.0	24.8
Hispanic origin						
Hispanic	44.8	50.1	45.0	47.2	44.3	43.2
Mexican-American	44.9	41.1	40.9	41.6	45.9	47.7
All other Hispanic	44.7	61.6	48.2	53.5	42.6	40.0
Non-Hispanic	52.5	57.7	52.2	54.8	51.7	52.0
Geographical region						
Northeast	53.6	63.2	56.2	58.1	52.1	50.9
Midwest	53.9	54.4	51.7	59.9	52.1	54.6
South	48.5	55.3	48.1	48.6	48.0	48.0
West	52.6	56.8	54.8	52.0	52.3	51.4
Metro residence						
MSA[1]	53.1	57.8	53.4	55.8	51.9	52.6
Central city	50.6	53.8	50.9	54.5	50.7	48.0
Not central city	54.7	61.0	55.2	56.8	52.6	55.3
Non-MSA[1]	47.2	53.7	46.5	48.5	47.1	46.0
Parental education						
Less than high school graduate	35.0	34.3	34.3	45.0	35.1	32.6
High school graduate	46.9	50.6	49.1	46.6	45.5	47.3
Some college	54.9	61.6	52.7	55.3	55.7	53.4
College graduate	61.9	69.1	59.4	64.0	60.9	61.8
Some graduate school	67.5	72.3	69.1	72.8	62.6	70.4
Family income						
Less than $10,000	35.2	40.4	40.4	41.9	34.5	29.2
$10,000–$19,999	43.9	54.4	46.4	49.0	42.4	40.3
$20,000–$34,999	53.3	57.7	54.4	52.4	53.2	52.3
$35,000–$49,999	59.3	68.5	54.9	63.5	58.7	58.5
$50,000 or more	64.3	66.7	63.5	67.8	63.8	63.9
Welfare and/or poverty status						
Below poverty level	37.4	43.7	43.3	45.0	36.1	31.3
Received AFDC[2] past year	37.6	37.7	43.9	43.4	35.8	33.5
No AFDC[2] past year	37.1	52.5	42.4	47.4	36.4	29.1
At or above poverty level	55.2	61.3	54.4	56.4	54.5	54.9
Family structure						
Both biological parents	55.1	60.5	53.8	55.9	54.1	55.3
Biological mother only	42.3	41.5	44.5	47.5	40.4	42.3
Biological mother and stepfather	48.9	*22.1	56.5	55.0	49.2	47.8
Biological father only	50.8	*68.1	*45.3	*52.0	53.5	47.7
Biological father and stepmother	53.9	*100.0	*8.1	*40.9	52.9	56.3
Adoptive parents	55.8	*68.6	*70.5	65.3	49.6	54.6
Grandparents	39.4	*39.1	31.8	46.1	43.3	36.8
Other	49.9	66.0	56.0	49.5	49.2	47.4
Mother's age at first birth						
17 or younger	41.9	46.5	37.0	42.1	41.4	43.1
18–19	46.3	49.4	46.1	47.4	45.8	46.2
20–24	52.3	56.1	52.1	52.6	51.3	52.6
25–29	59.5	63.3	56.5	62.2	57.9	61.3
30 or older	56.8	66.4	63.1	60.5	55.8	45.9

See footnotes at end of table.

Table 1. Percent of children 0–17 years of age in excellent health with no limiting condition, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Number of children in family						
One	51.9	62.5	55.8	48.8	49.6	48.8
Two	52.8	52.5	49.1	55.0	51.7	54.6
Three	51.5	59.4	51.2	55.8	51.0	50.1
Four	48.9	45.0	51.9	56.1	50.3	44.8
Five or more	48.2	36.3	46.8	59.4	46.6	49.7
Mother's employment status						
In labor force	53.1	56.8	52.5	54.0	52.1	53.5
Working for pay	53.6	57.3	53.2	55.0	52.6	53.8
Looking for work	46.1	53.6	44.8	39.8	43.6	49.4
Not in labor force	49.4	56.3	51.4	54.6	48.1	45.6
Prenatal care of mothers of children 0–5 years old						
Timely care	54.0	58.1	53.2	53.8	51.7	. . .
Late care or none	46.2	34.4	45.4	50.9	56.8	. . .
Child's birthweight						
Low birthweight	41.6	41.9	43.6	38.1	38.3	46.4
Very low: less than 1,500 grams	35.3	*40.4	*40.4	*15.5	28.6	46.8
Low: 1,500–2,500 grams	42.4	42.0	43.9	40.8	39.5	46.4
Non-low birthweight	52.7	58.1	52.6	55.5	52.0	51.5
Source of medical care when sick						
Regular source	52.0	57.1	52.0	54.4	51.0	51.5
Regular provider	52.6	58.7	52.2	54.5	51.6	52.1
No regular provider	48.7	49.1	50.9	53.9	47.3	48.0
No regular source	47.6	56.7	47.3	42.9	48.4	46.7
Child's health insurance						
Covered	52.7	57.4	52.1	54.2	51.7	52.8
Medicaid	36.3	38.4	40.8	44.5	34.7	30.9
Private insurance	54.9	61.9	54.1	55.8	53.9	54.9
Not covered	46.5	54.9	50.8	51.2	46.4	41.5
Chronic conditions						
None	57.6	62.3	59.4	61.2	56.7	55.6
1 or more	44.2	39.7	42.9	44.9	43.7	45.6

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[1] MSA is metropolitian statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 2. Percent of children 0–17 years of age in fair to poor health or with limiting condition, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	7.5	3.3	5.3	5.5	8.3	9.0
Sex						
Male	8.1	4.5	5.8	6.7	9.7	8.4
Female	6.9	1.9	4.8	4.3	6.8	9.6
Race						
White	7.3	3.4	5.7	4.5	7.9	8.6
Black	9.5	3.1	4.9	12.4	9.6	11.5
Asian, Pacific Islander	3.3	–	–	4.7	6.5	0.8
Native American	8.7	*4.8	*6.0	*–	14.0	8.3
Hispanic origin						
Hispanic	8.3	5.4	4.6	6.1	9.6	9.7
Mexican-American	7.7	9.6	3.3	5.3	8.8	8.0
All other Hispanic	9.0	–	5.7	6.9	10.3	10.8
Non-Hispanic	7.5	3.0	5.7	5.5	8.1	8.9
Geographical region						
Northeast	6.6	2.6	3.2	4.8	7.6	8.1
Midwest	7.9	4.2	5.8	4.9	8.0	10.3
South	7.9	3.7	6.5	6.5	8.6	8.8
West	7.1	2.1	4.3	5.2	8.5	8.2
Metro residence						
MSA[1]	7.4	3.3	4.9	4.8	8.4	8.8
Central city	7.4	3.3	3.5	6.1	8.2	9.5
Not central city	7.3	3.4	5.8	3.9	8.5	8.3
Non-MSA[1]	8.0	3.1	6.8	7.7	7.8	9.6
Parental education						
Less than high school graduate	12.0	3.9	11.4	7.7	11.4	15.2
High school graduate	7.9	4.1	5.7	5.8	8.7	9.2
Some college	6.8	2.9	3.6	6.8	7.2	8.1
College graduate	6.0	2.9	3.9	2.9	7.1	7.5
Some graduate school	4.4	1.9	1.0	2.6	6.5	3.9
Family income						
Less than $10,000	13.2	6.6	11.6	11.6	14.0	15.3
$10,000–$19,999	9.3	2.8	4.6	5.5	9.6	14.0
$20,000–$34,999	6.8	4.5	4.2	5.7	6.5	9.1
$35,000–$49,999	5.5	1.4	3.3	2.5	7.0	5.9
$50,000 or more	5.3	2.4	4.7	2.8	6.1	5.6
Welfare and/or poverty status						
Below poverty level	11.7	5.2	9.7	10.0	12.1	14.7
Received AFDC[2] past year	12.4	4.3	9.8	10.8	14.1	15.0
No AFDC[2] past year	10.8	6.5	9.6	8.9	9.6	14.4
At or above poverty level	6.5	2.6	3.9	4.3	7.3	7.9
Family structure						
Both biological parents	6.2	3.4	4.3	4.8	6.9	7.6
Biological mother only	11.5	3.8	10.2	9.8	12.1	13.2
Biological mother and stepfather	8.7	*–	4.4	5.7	9.2	8.8
Biological father only	7.2	*6.1	*–	*1.4	8.2	8.1
Biological father and stepmother	4.7	*–	8.2*	*–	3.9	5.3
Adoptive parents	10.6	*–	9.0*	–	12.0	13.9
Grandparents	9.1	*–	4.1	4.2	3.7	17.9
Other	6.3	1.4	4.3	1.9	9.9	5.7
Mother's age at first birth						
17 or younger	10.8	10.4	12.9	6.7	10.9	11.2
18–19	8.9	3.7	5.8	8.2	9.0	10.7
20–24	7.3	2.4	4.8	5.5	8.7	8.0
25–29	5.2	1.6	2.5	4.1	6.4	6.1
30 or older	6.0	0.9	2.2	4.0	6.1	13.1

See footnotes at end of table.

Table 2. Percent of children 0–17 years of age in fair to poor health or with limiting condition, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	7.1	2.5	4.4	4.3	8.5	10.4
Two	7.2	3.3	5.9	6.6	7.7	7.8
Three	7.8	2.8	5.4	4.5	8.4	9.2
Four	8.3	8.5	1.5	5.6	9.6	8.9
Five or more	9.2	7.0	12.8	3.7	8.3	10.6
Mother's employment status						
In labor force	6.8	3.3	5.1	5.0	7.6	7.4
Working for pay	6.7	3.3	5.0	5.0	7.5	7.3
Looking for work	7.9	3.1	5.3	5.8	9.6	9.0
Not in labor force	8.7	3.1	5.0	6.3	9.3	12.7
Prenatal care of mothers of children 0–5 years old						
Timely care	5.5	3.2	5.4	5.8	7.6	. . .
Late care or none	6.0	0.6	5.0	9.8	8.3	. . .
Child's birthweight						
Low birthweight	11.8	5.8	9.0	7.4	13.7	12.9
Very low: less than 1,500 grams	20.5	*14.0	*22.0	*14.2	23.9	18.6
Low: 1,500–2,500 grams	10.7	5.2	7.5	6.6	12.5	12.1
Non-low birthweight	7.3	3.1	5.0	5.5	7.9	8.8
Source of medical care when sick						
Regular source	7.7	3.4	5.2	5.2	8.4	9.4
Regular provider	7.6	3.6	5.1	4.8	8.5	9.2
No regular provider	8.3	2.5	6.0	8.2	8.0	10.8
No regular source	6.4	1.2	5.7	11.6	6.0	6.5
Child's health insurance						
Covered	7.4	3.3	5.0	5.3	8.3	8.8
Medicaid	13.7	2.6	9.4	10.1	15.9	19.0
Private insurance	6.6	3.5	4.2	4.5	7.3	7.8
Not covered	8.5	2.7	6.6	7.4	8.7	10.8
Chronic conditions						
None	3.0	0.8	2.0	1.7	3.3	4.0
1 or more	13.2	10.9	9.2	10.5	14.0	14.7

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 3. Percent of children 0–17 years of age with a developmental delay, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	4.0	2.5	5.2	4.2	4.2	3.6
Sex						
Male	4.2	2.2	4.9	4.3	4.2	4.4
Female	3.8	2.9	5.4	4.0	4.2	2.7
Race						
White	4.4	3.3	5.3	4.5	4.6	4.0
Black	2.1	0.2	3.7	2.0	2.0	2.0
Asian, Pacific Islander	3.3	–	–	1.9	4.1	4.9
Native American	8.1	*–	*33.5	*22.2	3.3	–
Hispanic origin						
Hispanic	3.4	0.5	2.6	4.7	3.6	3.7
Mexican-American	3.1	1.0	3.4	7.1	1.6	4.1
All other Hispanic	3.7	1.9	2.1	5.6	3.4	
Non-Hispanic	4.1	2.9	5.6	4.3	4.3	3.6
Geographical region						
Northeast	3.3	2.6	2.2	3.8	4.2	2.6
Midwest	4.5	3.7	6.0	4.6	4.3	4.3
South	3.2	1.3	4.9	2.7	3.2	3.1
West	5.4	2.9	7.3	6.2	5.7	4.6
Metro residence						
MSA[1]	3.8	2.6	4.3	3.3	4.1	3.6
Central City	3.1	1.8	3.4	3.3	3.4	2.9
Not central city	4.2	3.2	4.9	3.4	4.6	4.0
Non-MSA[1]	4.7	2.3	8.0	7.0	4.3	3.8
Parental education						
Less than high school graduate	3.4	1.5	5.6	3.2	3.4	3.0
High school graduate	4.1	3.4	5.1	4.5	4.4	3.4
Some college	3.8	0.6	5.8	5.2	3.6	3.4
College graduate	4.7	3.6	4.7	4.5	5.0	4.5
Some graduate school	4.2	2.7	4.2	1.6	5.1	4.4
Family income						
Less than $10,000	5.4	3.0	9.1	6.2	5.3	3.8
$10,000–$19,999	4.0	1.5	5.3	3.7	3.2	5.2
$20,000–$34,999	4.0	4.9	3.0	5.6	4.6	2.7
$35,000–$49,999	4.1	0.7	5.1	3.2	4.1	4.4
$50,000 or more	3.8	3.5	6.1	2.0	4.3	3.2
Welfare and/or poverty status						
Below poverty level	5.0	1.9	8.1	5.2	4.8	4.5
Received AFDC[2] past year	5.7	0.3	7.3	6.0	6.6	5.1
No AFDC[2] past year	4.1	4.3	9.2	3.8	2.6	4.0
At or above poverty level	3.8	2.7	4.3	3.9	4.0	3.5
Family structure						
Both biological parents	3.8	2.7	3.7	4.1	3.8	3.8
Biological mother only	4.5	0.8	8.4	3.6	4.8	3.9
Biological mother and stepfather	3.6	*–	9.7	2.1	4.4	2.8
Biological father only	2.0	*12.8	*–	*2.6	2.2	0.9
Biological father and stepmother	5.0	*–	*46.7	*9.7	7.9	1.6
Adoptive parents	8.5	*–	*–	8.8	11.5	8.0
Grandparents	3.9	*–	9.5	8.4	1.3	4.0
Other	5.0	–	19.8	5.4	6.1	1.9
Mother's age at first birth						
17 or younger	3.2	1.2	6.8	6.0	2.4	2.7
18–19	4.9	3.1	7.6	8.1	4.5	4.2
20–24	3.9	3.3	4.4	3.4	4.2	3.7
25–29	3.5	1.9	3.2	2.8	4.3	3.4
30 or older	4.0	2.6	3.1	2.4	4.7	5.0

See footnotes at end of table.

Table 3. Percent of children 0–17 years of age with a developmental delay, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Number of children in family						
One	3.6	1.8	4.7	4.5	3.6	3.4
Two	3.9	3.4	4.1	4.1	4.4	3.3
Three	3.9	3.8	6.4	4.2	3.7	3.4
Four	4.4	–	4.6	4.3	4.0	5.4
Five or more	5.9	–	14.4	3.6	6.5	4.3
Mother's employment status						
In labor force	3.8	3.1	4.4	4.5	3.9	3.3
Working for pay	3.6	3.1	4.1	4.1	3.7	3.3
Looking for work	5.8	3.1	7.9	10.2	6.1	3.7
Not in labor force	4.6	2.0	6.0	3.8	4.8	4.6
Prenatal care of mothers of children 0–5 years old						
Timely care	4.1	2.7	4.7	4.2	4.4	. . .
Late care or none	4.7	–	5.5	6.5	5.9	. . .
Child's birthweight						
Low birthweight	11.9	11.9	18.9	13.4	10.0	11.4
Very low: less than 1,500 grams	34.1	*30.1	*43.3	*41.0	36.5	27.2
Low: 1500–2500 grams	9.1	10.6	16.1	10.2	6.6	9.1
Non-low birthweight	3.4	2.0	4.2	3.4	3.7	3.1
Source of medical care when sick						
Regular source	4.1	2.7	5.1	4.1	4.3	3.6
Regular provider	4.0	3.1	4.5	4.2	4.3	3.7
No regular provider	4.1	0.9	10.1	3.7	3.9	3.2
No regular source	3.5	–	6.3	5.4	2.6	3.7
Child's health insurance						
Covered	4.2	2.7	5.5	4.4	4.4	3.6
Medicaid	5.3	1.3	7.7	4.3	5.6	5.5
Private insurance	4.0	3.1	5.1	4.4	4.2	3.4
Not covered	3.2	1.6	3.7	3.1	2.9	3.7
Chronic conditions						
None	2.2	1.1	3.0	1.9	2.5	1.9
1 or more	6.2	6.8	7.7	7.1	6.1	5.5

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 4. Percent of children 3–17 years of age with a learning disability, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*3–4 years*	*5–11 years*	*12–17 years*
All children	6.5	1.0	6.2	8.8
Sex				
Male	8.5	1.0	7.6	12.1
Female	4.4	1.1	4.7	5.2
Race				
White	6.8	0.9	6.3	9.2
Black	6.2	2.2	6.0	7.7
Asian, Pacific Islander	1.5	–	1.2	2.6
Native American	5.5	*–	8.1	4.7
Hispanic origin				
Hispanic	5.8	1.2	6.5	6.7
Mexican-American	6.3	2.4	6.0	9.1
All other Hispanic	5.3	–	7.1	5.0
Non-Hispanic	6.6	1.0	6.1	8.9
Geographical region				
Northeast	6.7	1.7	6.5	8.7
Midwest	6.5	0.7	5.9	9.2
South	6.5	0.8	5.9	9.0
West	6.5	1.2	6.8	8.0
Metro residence				
MSA[1]	6.5	1.1	6.4	8.6
Central city	5.9	1.4	6.0	7.6
Not central city	6.9	0.9	6.7	9.1
Non-MSA[1]	6.5	0.9	5.4	9.5
Parental education				
Less than high school graduate	9.4	2.5	8.7	12.0
High school graduate	7.1	1.2	7.0	9.2
Some college	5.5	0.5	5.4	7.3
College graduate	5.0	–	4.4	8.1
Some graduate school	5.3	1.6	4.7	7.3
Family income				
Less than $10,000	8.4	3.4	8.4	10.3
$10,000–$19,999	7.5	1.0	6.7	11.3
$20,000–$34,999	6.2	0.6	5.6	9.2
$35,000–$49,999	6.1	0.6	5.9	8.0
$50,000 or more	5.8	1.1	5.5	7.4
Welfare and/or poverty status				
Below poverty level	8.3	2.8	8.3	10.7
Received AFDC[2] past year	9.3	3.6	9.7	11.6
No AFDC[2] past year	7.2	1.5	6.6	9.8
At or above poverty level	6.1	0.6	5.6	8.5
Family structure				
Both biological parents	5.5	0.6	5.2	8.2
Biological mother only	7.6	3.0	6.9	10.0
Biological mother and stepfather	8.9	1.0	8.1	10.1
Biological father only	7.9	*–	6.2	10.9
Biological father and stepmother	7.7	*–	11.9	5.5
Adoptive parents	15.6	–	19.7	15.4
Grandparents	7.2	–	6.4	9.5
Other	6.5	–	7.4	7.2
Mother's age at first birth				
17 or younger	7.2	2.0	6.3	9.6
18–19	8.3	2.4	8.5	9.6
20–24	6.3	0.7	5.8	8.5
25–29	4.5	0.7	4.6	6.5
30 or older	5.8	0.3	5.5	10.9

See footnotes at end of table.

Table 4. Percent of children 3–17 years of age with a learning disability, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*3–4 years*	*5–11 years*	*12–17 years*
Number of children in family				
One	6.2	1.7	6.1	7.9
Two	6.1	1.0	6.2	8.2
Three	6.5	0.4	5.9	8.9
Four	8.1	–	7.1	11.3
Five or more	7.6	3.1	5.7	10.6
Mother's employment status				
In labor force	6.1	1.1	5.9	7.7
Working for pay	6.1	0.9	5.9	7.9
Looking for work	5.0	2.6	5.5	5.2
Not in labor force	7.3	1.0	6.7	11.3
Prenatal care of mothers of children 0–5 years old				
Timely care	1.5	1.1	2.1	. . .
Late care or none	3.8	2.5	7.1	. . .
Child's birthweight				
Low birthweight	9.1	2.7	8.9	11.4
Very low: less than 1,500 grams	16.0	*7.4	18.7	15.5
Low: 1,500–2,500 grams	8.2	2.2	7.7	10.9
Non-low birthweight	6.3	0.9	5.9	8.6
Source of medical care when sick				
Regular source	6.6	1.1	6.1	9.1
Regular provider	6.5	1.0	6.0	9.2
No regular provider	7.1	2.0	7.1	8.9
No regular source	5.3	6.5	5.4	
Child's health insurance				
Covered	6.5	1.0	6.4	8.6
Medicaid	10.1	4.6	9.6	13.9
Private insurance	6.1	0.4	6.0	8.1
Not covered	6.7	1.2	4.9	10.4
Chronic conditions				
None	4.5	0.3	4.5	6.1
1 or more	8.8	1.9	8.1	11.8

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 5. Percent of children 3–17 years of age with an emotional or behavioral problem, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*3–4 years*	*5–11 years*	*12–17 years*
All children	13.4	4.0	11.9	18.5
Sex				
Male	15.4	4.6	14.5	20.4
Female	11.3	3.4	9.3	16.5
Race				
White	14.2	4.1	12.9	19.4
Black	10.3	2.9	8.1	15.0
Asian, Pacific Islander	7.5	6.4	7.5	7.9
Native American	13.2	*9.2	10.9	17.2
Hispanic origin				
Hispanic	12.0	5.2	12.1	14.8
Mexican-American	10.5	–	11.3	14.8
All other Hispanic	13.4	10.8	13.0	14.8
Non-Hispanic	13.6	3.8	11.9	18.9
Geographical region				
Northeast	12.4	2.6	10.8	17.9
Midwest	14.9	4.8	13.7	19.9
South	11.6	2.8	9.4	17.1
West	15.3	5.8	14.9	19.4
Metro residence				
MSA[1]	13.7	3.7	12.2	19.1
Central city	13.6	3.5	12.2	19.1
Not central city	13.8	3.8	12.2	19.1
Non-MSA[1]	12.4	4.9	11.1	16.5
Parental education				
Less than high school graduate	13.1	2.3	11.1	18.4
High school graduate	13.5	4.7	12.5	17.8
Some college	15.5	3.9	13.9	21.2
College graduate	11.8	4.8	10.5	17.1
Some graduate school	10.6	2.7	9.1	15.8
Family income				
Less than $10,000	15.8	3.7	14.8	22.5
$10,000–$19,999	15.1	5.9	14.6	19.9
$20,000–$34,999	12.7	4.0	11.0	18.4
$35,000–$49,999	13.9	4.0	11.7	19.5
$50,000 or more	12.9	3.4	11.0	17.4
Welfare and/or poverty status				
Below poverty level	16.4	5.2	15.4	23.0
Received AFDC[2] past year	17.9	7.7	17.8	23.6
No AFDC[2] past year	14.8	1.4	12.6	22.5
At or above poverty level	12.7	3.7	11.0	17.6
Family structure				
Both biological parents	8.3	2.7	7.8	11.6
Biological mother only	19.6	6.9	17.7	26.3
Biological mother and stepfather	22.4	5.1	18.3	27.4
Biological father only	24.8	*6.5	21.5	31.6
Biological father and stepmother	31.1	*–	28.4	33.5
Adoptive parents	26.6	15.4	26.9	29.8
Grandparents	17.8	6.7	14.1	24.1
Other	17.4	6.2	19.7	18.0
Mother's age at first birth				
17 or younger	15.1	3.5	15.0	18.7
18–19	15.0	2.2	12.1	21.4
20–24	13.4	4.6	11.9	17.8
25–29	10.1	3.4	9.6	14.8
30 or older	11.1	3.8	11.0	17.6

See footnotes at end of table.

Table 5. Percent of children 3–17 years of age with an emotional or behavioral problem, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family				
One	15.7	5.0	14.8	20.5
Two	13.3	3.8	12.6	18.3
Three	12.2	4.1	10.6	16.8
Four	13.7	–	11.8	20.0
Five or more	11.0	7.7	6.3	17.2
Mother's employment status				
In labor force	13.8	3.9	12.4	18.4
Working for pay	14.0	4.1	12.5	18.5
Looking for work	11.7	0.7	11.2	16.0
Not in labor force	11.9	3.9	10.6	18.1
Prenatal care of mothers of children 0–5 years old				
Timely care	5.2	3.8	7.8	. . .
Late care or none	5.0	3.6	8.7	. . .
Child's birthweight				
Low birthweight	13.3	7.8	9.7	20.1
Very low: less than 1,500 grams	17.7	*–	14.7	24.9
Low: 1500–2500 grams	12.9	8.4	9.2	19.5
Non-low birthweight	13.2	3.7	11.9	18.3
Source of medical care when sick				
Regular source	13.5	4.1	12.0	19.0
Regular provider	13.3	4.2	12.0	18.5
No regular provider	14.8	3.3	12.1	21.9
No regular source	10.9	2.2	10.7	13.0
Child's health insurance				
Covered	13.6	3.8	12.3	18.6
Medicaid	18.8	7.8	17.9	26.4
Private insurance	12.9	3.2	11.6	17.9
Not covered	12.1	5.0	9.6	17.4
Chronic conditions				
None	9.6	2.1	8.5	13.8
1 or more	17.8	6.4	16.0	23.8

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[1] MSA is metropolitan statistical area.

[2] AFDC is AID to Families with Dependent Children.

Table 6. Percent of children 3–17 years of age with developmental delay, learning disability, or behavioral problem, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*3–4 years*	*5–11 years*	*12–17 years*
All children	19.5	8.0	18.1	25.2
Sex				
Male	22.9	8.7	21.4	29.2
Female	16.0	7.3	14.7	20.8
Race				
White	20.8	8.3	19.2	26.7
Black	14.9	6.2	13.2	19.5
Asian, Pacific Islander	10.2	8.2	8.9	12.8
Native American	20.1	*29.8	17.5	19.4
Hispanic origin				
Hispanic	17.2	8.8	18.2	19.2
Mexican-American	15.2	5.8	15.6	19.6
All other Hispanic	18.9	12.0	21.0	18.9
Non-Hispanic	19.9	8.1	18.1	25.8
Geographical region				
Northeast	18.6	7.0	17.5	24.1
Midwest	20.9	8.9	19.0	27.2
South	17.4	5.8	15.5	23.4
West	22.0	11.1	21.8	26.4
Metro residence				
MSA[1]	19.6	6.9	18.4	25.4
Central city	18.7	7.1	17.9	24.1
Not central city	20.1	6.8	18.6	26.1
Non-MSA[1]	19.4	11.5	17.2	24.6
Parental education				
Less than high school graduate	20.1	7.2	18.0	25.9
High school graduate	20.0	9.4	19.4	24.3
Some college	20.6	7.6	18.9	26.8
College graduate	18.1	8.8	16.1	25.0
Some graduate school	16.9	4.7	15.2	23.3
Family income				
Less than $10,000	22.8	11.0	22.1	28.6
$10,000–$19,999	21.7	9.6	20.4	28.4
$20,000–$34,999	19.0	9.0	17.3	24.9
$35,000–$49,999	19.9	7.2	17.8	26.1
$50,000 or more	18.5	5.0	16.7	23.8
Welfare and/or poverty status				
Below poverty level	22.9	11.0	21.9	29.5
Received AFDC[2] past year	24.6	14.1	24.3	30.9
No AFDC[2] past year	20.9	6.3	19.1	28.1
At or above poverty level	18.7	7.2	17.1	24.4
Family structure				
Both biological parents	14.6	6.4	13.9	19.2
Biological mother only	25.3	11.4	23.5	32.2
Biological mother and stepfather	28.3	7.3	25.0	33.0
Biological father only	30.2	*9.0	25.5	38.5
Biological father and stepmother	35.8	*9.7	36.8	36.1
Adoptive parents	35.7	23.0	37.1	38.1
Grandparents	23.3	12.8	18.2	30.9
Other	23.0	11.9	25.3	23.6
Mother's age at first birth				
17 or younger	21.1	8.9	20.1	25.6
18–19	22.5	11.0	19.8	28.4
20–24	19.3	7.7	17.7	24.3
25–29	15.6	6.0	15.4	21.3
30 or older	16.6	5.9	16.2	25.6

See footnotes at end of table.

Table 6. Percent of children 3–17 years of age with developmental delay, learning disability, or behavioral problem, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family				
One	21.2	9.3	19.8	26.6
Two	19.2	7.8	18.7	24.7
Three	18.5	8.1	16.8	23.7
Four	20.9	4.3	18.3	28.4
Five or more	18.5	10.7	14.8	24.2
Mother's employment status				
In labor force	19.7	8.3	18.1	24.6
Working for pay	19.8	8.1	18.2	24.8
Looking for work	18.1	11.4	17.6	21.1
Not in labor force	18.8	7.5	17.5	26.0
Prenatal care of mothers of children 0–5 years old				
Timely care	9.4	7.9	12.3	. . .
Late care or none	9.4	8.0	13.0	. . .
Child's birthweight				
Low birthweight	25.5	20.7	21.1	32.5
Very low: less than 1,500 grams	45.9	*41.0	46.5	46.6
Low: 1500–2500 grams	22.7	18.3	17.8	30.5
Non-low birthweight	18.9	7.0	17.7	24.5
Source of medical care when sick				
Regular source	19.7	8.2	18.2	25.7
Regular provider	19.5	8.1	18.0	25.4
No regular provider	20.9	8.3	19.2	27.1
No regular source	16.9	5.2	16.5	19.7
Child's health insurance				
Covered	19.7	8.2	18.5	25.0
Medicaid	25.5	13.6	24.4	33.7
Private insurance	19.0	7.3	17.8	24.2
Not covered	18.5	6.8	14.9	26.3
Chronic conditions				
None	14.1	3.9	13.2	18.8
1 or more	25.7	13.2	23.6	32.1

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 7. Percent of children 0–17 years of age who have no form of health insurance, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	14.5	17.8	16.7	12.4	14.1	14.4
Sex						
Male	14.1	18.1	16.4	12.2	13.9	13.4
Female	14.9	17.3	16.9	12.5	14.2	15.4
Race						
White	13.8	17.5	15.9	11.8	13.7	13.1
Black	16.1	14.0	19.3	13.7	15.0	17.5
Asian, Pacific Islander	10.5	19.2	16.7	8.3	6.6	11.8
Native American	37.3	*54.5	*29.4	*16.8	39.6	40.6
Hispanic origin						
Hispanic	27.0	36.7	26.5	18.7	27.4	27.8
Mexican-American	29.0	41.3	32.8	20.7	30.5	25.5
All other Hispanic	25.1	31.0	21.2	16.4	24.1	29.4
Non-Hispanic	12.8	14.9	15.4	11.0	12.4	12.7
Geographical region						
Northeast	8.8	9.3	10.3	8.1	8.1	9.1
Midwest	9.5	10.1	10.5	8.9	9.9	8.7
South	19.1	21.0	22.8	17.3	18.4	18.8
West	18.2	27.9	19.1	12.6	17.4	18.9
Metro residence						
MSA[1]	13.8	17.7	15.8	12.1	13.5	13.3
Central city	16.0	16.1	16.8	13.2	16.2	16.6
Not central city	12.3	19.0	15.1	11.3	11.7	11.3
Non-MSA[1]	16.7	18.1	19.6	13.3	15.9	17.6
Parental education						
Less than high school graduate	29.6	40.6	33.2	19.1	27.3	32.2
High school graduate	15.7	16.0	18.0	16.4	16.0	14.1
Some college	11.4	16.3	15.1	9.9	10.5	10.6
College graduate	7.1	6.6	7.7	5.0	7.5	7.2
Some graduate school	6.5	9.2	7.8	5.9	5.5	7.1
Family income						
Less than $10,000	25.9	21.8	28.7	15.9	25.9	29.9
$10,000–$19,999	25.7	24.8	30.5	21.3	24.9	26.3
$20,000–$34,999	11.0	14.8	10.9	10.5	10.7	11.0
$35,000–$49,999	6.3	9.2	5.9	5.1	6.1	6.7
$50,000 or more	5.5	5.9	6.9	4.3	5.9	5.0
Welfare and/or poverty status						
Below poverty level	23.3	19.8	23.5	14.7	23.6	27.3
Received AFDC[2] past year	7.3	8.4	5.2	3.6	8.8	7.7
No AFDC[2] past year	43.0	37.3	49.9	32.0	41.9	46.6
At or above poverty level	12.4	17.1	14.6	11.8	11.6	11.9
Family structure						
Both biological parents	12.8	16.3	14.9	11.8	12.8	11.5
Biological mother only	16.9	19.6	20.0	11.6	15.5	18.7
Biological mother and stepfather	18.0	*22.1	14.4	21.5	17.7	18.2
Biological father only	19.8	*11.5	*47.4	*23.7	17.5	19.5
Biological father and stepmother	14.9	*–	*35.5	*32.5	18.6	11.7
Adoptive parents	8.2	*–	*2.3	6.0	9.5	9.8
Grandparents	21.1	*32.7	28.1	18.4	17.2	22.5
Other	16.7	17.4	22.5	10.8	14.1	19.0
Mother's age at first birth						
17 or younger	21.9	24.9	31.4	17.3	19.7	22.2
18–19	19.0	22.6	21.6	19.3	18.9	17.8
20–24	13.4	19.0	14.9	11.1	13.5	12.5
25–29	9.3	12.3	11.6	8.4	8.9	8.4
30 or older	10.5	12.3	11.1	10.4	9.9	10.8

See footnotes at end of table.

Table 7. Percent of children 0–17 years of age who have no form of health insurance, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	15.9	20.0	16.9	13.4	15.7	14.7
Two	12.9	15.3	13.8	12.2	12.7	12.8
Three	13.5	14.2	19.2	15.0	12.8	12.3
Four	17.7	24.3	19.9	2.2	16.7	21.7
Five or more	19.5	23.6	24.7	12.6	19.9	18.7
Mother’s employment status						
In labor force	13.0	16.7	14.7	12.4	12.4	12.9
Working for pay	12.2	16.9	13.9	11.4	11.4	12.2
Looking for work	24.6	15.3	23.7	24.8	28.0	23.6
Not in labor force	16.8	17.9	18.9	12.1	16.8	17.4
Prenatal care of mothers of children 0–5 years old						
Timely care	14.4	16.4	15.6	11.7	15.2	. . .
Late care or none	22.1	29.9	24.7	14.4	20.8	. . .
Child’s birthweight						
Low birthweight	15.1	13.7	15.9	14.7	14.7	15.7
Very low: less than 1,500 grams	14.1	*–	*18.9	*16.7	10.6	17.2
Low: 1500–2500 grams	15.2	14.8	15.5	14.4	15.2	15.5
Non-low birthweight	14.4	18.0	16.7	12.2	13.9	14.1
Source of medical care when sick						
Regular source	13.0	16.6	15.4	10.9	12.6	12.5
Regular provider	11.3	13.4	14.4	10.1	11.0	10.6
No regular provider	23.5	33.6	23.0	15.9	23.3	24.2
No regular source	36.7	34.1	38.7	39.4	38.5	34.6
Chronic conditions						
None	16.2	19.9	19.7	13.3	15.1	16.4
1 or more	12.4	11.0	13.1	11.1	12.9	12.2

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 8. Percent of children 0–17 years of age who have not received routine medical care in the past 2 years, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	15.6	4.1	1.7	5.9	19.0	22.2
Sex						
Male	15.0	3.2	1.5	5.8	18.0	21.8
Female	16.2	5.1	1.9	6.1	19.9	22.7
Race						
White	16.1	3.6	1.1	5.8	20.1	22.2
Black	14.2	7.5	3.5	5.8	15.0	20.9
Asian, Pacific Islander	15.4	3.4	6.7	11.7	10.1	31.1
Native American	17.4	*–	*–	*14.4	21.5	27.1
Hispanic origin						
Hispanic	17.2	7.2	2.3	5.9	20.5	25.2
Mexican-American	20.0	8.4	4.6	10.1	22.7	31.2
All other Hispanic	14.6	5.8	0.5	1.3	18.2	21.3
Non-Hispanic	15.6	3.8	1.7	6.2	18.9	22.0
Geographical region						
Northeast	7.0	3.3	0.3	1.3	7.2	12.1
Midwest	15.2	2.5	1.5	4.6	20.4	19.7
South	18.6	5.5	2.1	6.9	22.2	26.9
West	18.6	4.3	2.5	9.9	22.4	26.5
Metro residence						
MSA[1]	14.2	4.1	1.3	5.1	16.4	21.5
Central city	14.1	5.9	1.4	4.2	16.3	22.5
Not central city	14.2	2.7	1.2	5.7	16.5	20.9
Non-MSA[1]	20.1	3.9	3.1	8.8	26.7	24.4
Parental education						
Less than high school graduate	18.8	13.1	1.8	12.6	21.5	23.6
High school graduate	18.6	3.5	3.1	6.2	21.9	27.2
Some college	14.4	2.8	1.2	4.3	18.5	20.0
College graduate	11.3	1.5	0.6	5.1	15.1	16.7
Some graduate school	11.4	3.0	–	4.2	14.7	15.4
Family income						
Less than $10,000	16.2	8.1	3.2	6.7	19.2	24.9
$10,000–$19,999	18.1	3.0	1.6	7.1	23.3	27.4
$20,000–$34,999	16.3	2.9	1.7	6.6	20.5	23.1
$35,000–$49,999	15.2	2.3	–	4.5	18.9	21.1
$50,000 or more	12.0	2.1	0.7	2.5	13.2	17.4
Welfare and/or poverty status						
Below poverty level	15.8	5.4	2.9	7.3	18.9	24.6
Received AFDC[2] past year	10.2	2.6	2.5	6.0	11.6	17.7
No AFDC[2] past year	22.7	9.5	3.4	9.4	27.8	31.6
At or above poverty level	15.5	3.7	1.4	5.6	18.9	21.8
Family structure						
Both biological parents	15.5	3.2	1.7	6.0	20.4	23.1
Biological mother only	15.0	7.1	1.2	7.2	16.5	22.0
Biological mother and stepfather	21.8	*18.3	4.7	4.9	22.9	23.0
Biological father only	15.7	*5.6	*–	*8.5	11.4	22.6
Biological father and stepmother	25.3	*–	*9.1	*–	26.4	26.2
Adoptive parents	13.5	*–	*11.0	5.5	15.0	16.0
Grandparents	11.9	*–	–	–	9.9	22.2
Other	8.3	8.8	–	2.0	5.9	13.1
Mother's age at first birth						
17 or younger	16.9	7.9	3.6	9.9	17.4	24.0
18–19	18.7	9.1	1.5	5.4	23.6	23.1
20–24	16.3	2.4	1.9	5.4	19.6	23.1
25–29	13.0	1.8	0.8	6.0	17.8	18.9
30 or older	9.0	2.8	1.4	4.0	11.5	17.8

See footnotes at end of table.

Table 8. Percent of children 0–17 years of age who have not received routine medical care in the past 2 years, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	10.6	3.0	0.8	3.3	13.5	20.2
Two	14.4	5.6	1.8	6.2	17.2	20.2
Three	17.0	3.2	2.0	7.4	19.1	23.0
Four	21.9	3.3	3.9	2.9	26.0	27.7
Five or more	25.2	7.2	3.4	14.9	29.8	28.6
Mother's employment status						
In labor force	16.2	2.9	2.1	5.9	19.6	21.4
Working for pay	16.1	2.9	1.9	5.8	19.6	21.1
Looking for work	16.7	2.5	5.1	7.2	19.0	26.3
Not in labor force	14.6	5.2	1.3	6.0	18.2	24.0
Prenatal care of mothers of children 0–5 years old						
Timely care	3.8	2.3	1.7	5.7	6.4	. . .
Late care or none	8.3	19.8	1.9	8.7	6.5	. . .
Child's birthweight						
Low birthweight	15.4	1.9	1.2	4.6	16.6	25.0
Very low: less than 1,500 grams	12.9	*–	*–	*3.5	11.7	21.7
Low: 1500–2500 grams	15.7	2.0	1.3	4.7	17.2	25.4
Non-low birthweight	15.5	4.3	1.7	5.9	19.2	21.9
Source of medical care when sick						
Regular source	14.2	3.1	1.5	5.5	17.6	20.3
Regular provider	13.5	1.8	1.1	5.1	17.1	19.1
No regular provider	18.9	9.8	4.4	8.1	20.6	27.5
No regular source	35.5	16.6	6.3	15.1	41.0	43.9
Child's health insurance						
Covered	14.6	3.4	1.5	5.6	17.8	20.7
Medicaid	11.0	6.2	1.7	7.6	11.9	18.8
Private insurance	15.1	2.8	1.5	5.3	18.6	20.9
Not covered	21.3	7.5	2.7	7.6	26.1	31.3
Chronic conditions						
None	16.7	5.1	1.7	6.4	19.9	25.5
1 or more	14.3	1.1	1.7	5.4	18.0	18.7

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 9. Percent of children 0–17 years of age who have no regular source for routine medical care, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	9.5	6.8	5.3	5.8	9.3	13.2
Sex						
Male	9.9	5.9	4.8	6.0	10.2	13.5
Female	9.1	7.9	5.8	5.6	8.3	12.9
Race						
White	9.2	5.8	4.5	5.6	8.9	12.9
Black	10.1	12.2	7.5	5.1	9.6	12.7
Asian, Pacific Islander	14.1	6.5	9.5	18.6	10.6	20.5
Native American	10.1	*9.7	*–	*–	15.0	12.8
Hispanic origin						
Hispanic	15.7	10.0	6.6	7.0	15.9	23.8
Mexican-American	15.3	13.6	8.6	6.9	16.5	21.1
All other Hispanic	16.1	5.7	4.9	7.1	15.3	25.5
Non-Hispanic	8.8	6.5	5.0	5.8	8.4	12.0
Geographical region						
Northeast	4.4	3.1	2.2	1.4	4.2	6.7
Midwest	6.4	5.2	4.1	3.0	7.5	7.2
South	12.3	9.3	6.7	8.7	11.2	17.5
West	13.4	8.0	7.2	8.6	12.9	19.4
Metro residence						
MSA[1]	9.1	6.2	5.3	5.2	8.6	13.2
Central city	10.0	7.9	4.7	5.5	10.7	13.6
Not central city	8.6	4.9	5.8	5.1	7.3	12.9
Non-MSA[1]	10.8	8.9	5.2	7.7	11.4	13.3
Parental education						
Less than high school graduate	18.8	16.5	7.9	11.5	19.6	23.4
High school graduate	10.2	7.1	6.7	5.3	10.6	13.3
Some college	7.9	5.6	4.3	5.3	7.0	11.4
College graduate	5.0	1.1	4.0	4.6	3.3	9.0
Some graduate school	5.3	4.7	2.3	4.5	5.0	7.3
Family income						
Less than $10,000	14.0	12.4	10.0	9.2	14.2	18.1
$10,000–$19,999	13.8	7.2	6.9	4.7	15.4	20.4
$20,000–$34,999	7.8	4.5	3.8	5.7	7.2	11.8
$35,000–$49,999	5.9	3.3	2.2	3.5	5.2	9.1
$50,000 or more	5.3	4.5	1.7	1.9	4.3	8.3
Welfare and/or poverty status						
Below poverty level	14.3	9.1	9.5	7.0	15.1	20.1
Received AFDC[2] past year	10.1	5.9	9.2	5.7	10.9	13.0
No AFDC[2] past year	19.4	13.8	10.0	9.2	20.1	27.0
At or above poverty level	8.3	6.1	3.9	5.5	7.8	11.8
Family structure						
Both biological parents	7.7	5.1	4.9	5.3	7.7	10.9
Biological mother only	11.9	12.5	5.3	7.9	12.0	15.1
Biological mother and stepfather	15.3	*18.3	15.7	9.9	13.7	17.2
Biological father only	14.5	*17.4	*–	*9.2	10.3	19.7
Biological father and stepmother	18.7	*–	*–	*–	20.6	19.0
Adoptive parents	6.7	*–	*11.0	5.5	1.8	12.1
Grandparents	13.8	*32.0	14.7	4.2	9.3	19.0
Other	9.1	10.4	2.9	0.3	7.9	12.9
Mother's age at first birth						
17 or younger	13.9	10.4	8.4	8.4	13.9	17.8
18–19	13.5	15.8	7.4	8.4	14.2	15.6
20–24	8.8	5.8	5.1	6.0	9.1	10.9
25–29	5.6	2.6	2.5	3.5	4.6	11.3
30 or older	5.5	3.3	5.6	3.7	4.4	9.9

See footnotes at end of table.

Table 9. Percent of children 0–17 years of age who have no regular source for routine medical care, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	8.9	6.8	3.6	6.8	8.7	13.9
Two	8.2	7.2	5.7	4.0	8.1	11.4
Three	9.2	4.2	4.6	6.5	9.2	12.0
Four	12.9	9.2	11.3	9.4	11.7	16.0
Five or more	16.6	13.3	9.3	11.5	14.8	21.7
Mother's employment status						
In labor force	8.9	5.0	5.0	6.2	8.3	12.1
Working for pay	8.5	5.1	4.3	5.6	8.1	11.6
Looking for work	14.3	4.5	13.9	13.0	11.5	20.7
Not in labor force	10.5	8.4	5.7	5.4	11.1	15.3
Prenatal care of mothers of children 0–5 years old						
Timely care	4.9	4.7	4.9	5.2	4.4	. . .
Late care or none	12.8	23.8	11.8	8.4	7.6	. . .
Child's birthweight						
Low birthweight	11.9	6.1	4.3	5.3	11.7	18.0
Very low: less than 1,500 grams	5.2	*–	*–	*–	2.9	11.5
Low: 1500–2500 grams	12.7	6.5	4.8	5.9	12.8	19.0
Non-low birthweight	9.1	6.9	5.2	5.5	9.0	12.5
Source of medical care when sick						
Regular source	5.2	4.1	3.3	3.1	5.3	6.9
Regular provider	3.3	2.5	1.8	1.6	3.4	4.4
No regular provider	18.5	12.2	15.1	13.5	18.3	22.9
No regular source	69.0	44.8	43.8	52.4	72.6	78.0
Child's health insurance						
Covered	7.5	5.5	4.4	5.0	7.2	10.3
Medicaid	9.5	10.8	5.9	5.7	10.1	12.4
Private insurance	7.3	4.4	4.1	4.9	6.9	10.1
Not covered	20.1	11.6	9.2	10.7	20.3	29.3
Chronic conditions						
None	11.0	8.3	6.1	6.0	10.8	15.8
1 or more	7.8	2.3	4.4	5.6	7.6	10.4

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 10. Percent of children 0–17 years of age who have no particular provider for sick care, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	19.2	22.1	15.6	17.5	18.4	21.5
Sex						
Male	19.7	22.4	14.9	18.5	19.5	21.4
Female	18.7	21.8	16.4	16.5	17.2	21.6
Race						
White	15.7	17.9	11.5	14.5	14.7	18.3
Black	32.2	38.3	27.8	25.5	33.1	33.6
Asian, Pacific Islander	29.3	30.2	26.1	24.9	28.7	33.0
Native American	43.6	*37.5	*49.1	*66.7	43.5	33.8
Hispanic origin						
Hispanic	31.9	46.9	17.4	27.8	29.6	38.3
Mexican-American	31.9	43.5	18.1	27.0	29.9	39.8
All other Hispanic	31.8	51.1	16.8	28.7	29.2	37.2
Non-Hispanic	17.6	18.7	15.3	16.0	17.0	19.6
Geographical region						
Northeast	14.0	18.7	10.1	12.1	14.3	14.9
Midwest	14.3	13.8	12.4	14.2	14.5	15.0
South	22.3	26.5	18.5	19.3	21.0	25.4
West	24.6	27.4	19.6	23.2	22.6	29.0
Metro residence						
MSA[1]	20.3	24.2	16.3	16.4	19.5	23.5
Central city	26.0	32.6	19.1	21.0	25.3	30.0
Not central city	16.7	17.1	14.3	13.1	16.0	19.5
Non-MSA[1]	15.5	15.1	13.5	21.1	14.8	15.3
Parental education						
Less than high school graduate	36.6	58.0	28.4	31.7	36.6	37.6
High school graduate	19.6	20.3	19.5	19.6	18.9	20.5
Some college	15.2	15.4	8.9	13.5	14.7	18.5
College graduate	9.9	6.1	6.3	12.5	8.9	12.8
Some graduate school	10.1	13.6	5.0	7.2	9.3	13.4
Family income						
Less than $10,000	33.8	33.4	29.1	31.7	33.5	37.6
$10,000–$19,999	27.0	30.0	23.0	26.3	25.9	30.0
$20,000–$34,999	15.0	15.9	11.1	12.2	15.0	17.4
$35,000–$49,999	11.5	10.9	7.7	9.6	9.7	15.3
$50,000 or more	12.2	12.0	7.4	10.0	11.8	14.6
Welfare and/or poverty status						
Below poverty level	33.8	37.1	29.8	30.2	32.5	38.6
Received AFDC[2] past year	30.3	35.3	28.2	26.3	28.5	35.1
No AFDC[2] past year	38.1	39.7	32.2	36.4	37.4	42.0
At or above poverty level	15.5	17.2	11.2	14.2	14.7	18.1
Family structure						
Both biological parents	14.6	16.6	10.4	15.6	14.5	15.8
Biological mother only	27.8	37.8	25.8	24.0	26.8	29.1
Biological mother and stepfather	23.4	*77.9	23.6	21.8	22.7	23.9
Biological father only	23.3	*32.4	*12.9	*11.7	16.5	30.9
Biological father and stepmother	22.9	*–	*56.8	*22.8	19.4	23.7
Adoptive parents	12.6	*–	*13.0	4.3	9.1	20.0
Grandparents	28.6	*54.7	28.3	11.0	22.5	36.9
Other	24.0	33.3	33.5	16.4	23.1	23.4
Mother's age at first birth						
17 or younger	31.0	48.9	26.8	33.7	28.4	31.5
18–19	23.8	28.1	20.8	18.4	25.8	23.2
20–24	17.4	19.8	14.2	19.0	17.2	17.8
25–29	11.7	12.3	8.2	10.2	9.7	17.6
30 or older	13.9	13.6	10.9	10.5	13.3	20.9

See footnotes at end of table.

Table 10. Percent of children 0–17 years of age who have no particular provider for sick care, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	19.4	21.8	16.0	18.9	18.4	21.6
Two	16.9	19.8	15.3	16.0	15.4	19.2
Three	18.7	19.1	12.4	17.6	17.9	21.6
Four	25.1	42.2	20.2	19.5	26.1	24.9
Five or more	26.7	35.1	22.2	23.0	26.0	28.3
Mother's employment status						
In labor force	17.2	15.7	14.0	16.7	16.5	19.3
Working for pay	16.3	14.1	12.4	15.6	15.8	18.6
Looking for work	29.8	27.6	32.5	31.3	26.8	32.3
Not in labor force	22.1	26.9	17.3	18.6	21.7	25.7
Prenatal care of mothers of children 0–5 years old						
Timely care	15.3	19.3	13.0	16.3	13.6	. . .
Late care or none	27.4	37.1	26.6	27.5	12.4	. . .
Child's birthweight						
Low birthweight	22.2	25.4	19.7	14.7	21.1	26.8
Very low: less than 1,500 grams	19.7	*12.1	*13.9	*26.6	13.0	27.6
Low: 1500–2500 grams	22.6	26.4	20.4	13.4	22.1	26.7
Non-low birthweight	18.6	21.8	15.3	17.5	17.9	20.6
Child's health insurance						
Covered	16.0	17.3	13.6	15.1	15.2	17.8
Medicaid	30.5	37.0	28.3	30.7	27.4	34.2
Private insurance	14.0	12.8	11.0	12.6	13.6	16.2
Not covered	36.7	41.0	26.2	32.1	36.3	42.0
Chronic conditions						
None	22.1	24.0	18.2	18.9	21.5	25.1
1 or more	15.6	16.4	12.7	15.7	14.8	17.5

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

NOTE: This table includes children *with* a regular source of sick care, but no particular provider of this care, as well as children *without* a regular source of sick care who therefore have no particular provider of this care.

Table 11. Number of physician contacts during the past year for children 0–17 years of age, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	4.5	10.9	7.5	4.9	3.5	3.3
Sex						
Male	4.6	12.6	8.0	4.8	3.6	2.9
Female	4.4	9.0	6.9	5.0	3.3	3.8
Race						
White	4.8	12.2	8.1	5.5	3.7	3.6
Black	3.0	6.0	5.3	2.9	2.3	2.4
Asian, Pacific Islander	2.5	5.9	2.9	4.6	2.1	1.0
Native American	4.5	*9.2	*3.1	*2.1	2.5	7.0
Hispanic origin						
Hispanic	3.2	6.6	5.4	3.6	2.4	2.4
Mexican-American	2.5	6.6	5.8	2.8	1.2	1.8
All other Hispanic	3.8	6.5	5.1	4.5	3.7	2.9
Non-Hispanic	4.7	11.6	7.7	5.2	3.6	3.4
Geographical region						
Northeast	4.3	9.3	7.3	4.8	3.8	2.8
Midwest	4.6	13.0	7.0	5.1	3.6	3.5
South	4.3	9.9	8.0	5.0	3.2	3.0
West	4.8	11.3	7.1	4.7	3.5	4.3
Metro residence						
MSA[1]	4.7	11.2	7.7	5.1	3.6	3.5
Central city	4.2	10.2	6.8	4.5	3.0	3.0
Not central city	5.0	12.0	8.3	5.5	4.0	3.8
Non-MSA[1]	3.9	9.8	6.7	4.3	3.0	2.9
Parental education						
Less than high school graduate	3.4	8.3	5.5	3.1	2.3	3.4
High school graduate	4.0	9.4	6.7	4.9	3.2	2.8
Some college	4.9	10.0	8.1	5.2	3.8	4.0
College graduate	5.8	16.5	9.8	5.3	4.5	3.5
Some graduate school	5.1	13.2	8.5	5.6	4.1	3.7
Family income						
Less than $10,000	4.5	10.5	7.0	4.3	3.2	3.4
$10,000–$19,999	3.5	9.0	3.9	4.6	2.9	2.3
$20,000–$34,999	4.6	11.2	7.2	4.8	3.3	3.9
$35,000–$49,999	5.3	15.1	8.7	7.6	4.1	3.5
$50,000 or more	5.6	12.4	12.5	5.0	4.5	4.3
Welfare and/or poverty status						
Below poverty level	4.0	9.6	5.7	3.5	3.1	2.9
Received AFDC[2] past year	4.6	10.7	5.8	4.1	3.6	3.8
No AFDC[2] past year	3.2	8.1	5.7	2.5	2.6	2.0
At or above poverty level	4.7	11.3	8.0	5.3	3.6	3.4
Family structure						
Both biological parents	4.7	11.3	7.3	5.0	3.6	3.2
Biological mother only	4.7	9.4	7.6	4.3	4.0	3.8
Biological mother and stepfather	3.4	*15.5	9.3	5.7	2.9	3.2
Biological father only	3.9	*15.9	*12.8	*11.5	2.3	2.3
Biological father and stepmother	2.6	*54.0	*8.5	*0.0	0.7	3.3
Adoptive parents	5.4	*20.3	*11.3	6.0	3.5	4.6
Grandparents	3.7	*6.9	9.4	1.6	1.7	3.8
Other	3.8	7.9	5.2	3.7	3.0	3.6
Mother's age at first birth						
17 or younger	3.4	8.6	5.0	4.6	2.7	2.5
18–19	3.6	9.2	5.2	4.5	2.2	3.5
20–24	4.6	11.1	8.0	4.9	3.6	3.4
25–29	5.6	12.2	9.3	4.7	4.6	3.5
30 or older	6.0	12.5	7.4	6.6	4.2	4.7

See footnotes at end of table.

Table 11. Number of physician contacts during the past year for children 0–17 years of age, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	5.9	12.0	7.8	5.2	4.0	4.1
Two	4.9	11.1	8.7	5.6	3.8	3.5
Three	3.9	11.0	6.1	3.0	3.4	3.5
Four	3.3	7.8	4.1	8.0	2.7	2.2
Five or more	1.6	0.0	5.0	0.7	1.6	1.2
Mother's employment status						
In labor force	4.3	10.7	7.9	4.8	3.4	3.1
Working for pay	4.3	10.9	8.1	4.9	3.4	3.2
Looking for work	3.7	9.2	4.8	3.5	3.3	2.2
Not in labor force	4.9	11.1	7.0	5.0	3.6	3.8
Prenatal care of mothers of children 0–5 years old						
Timely care	7.1	10.9	7.6	5.2	5.4	. . .
Late care or none	5.7	7.5	6.5	4.1	4.2	. . .
Child's birthweight						
Low birthweight	5.1	15.4	8.6	5.2	3.5	4.2
Very low: less than 1,500 grams	7.3	*20.9	*11.1	*7.6	8.4	3.5
Low: 1500–2500 grams	4.8	15.0	8.3	4.9	2.9	4.3
Non-low birthweight	4.5	10.6	7.4	5.0	3.5	3.3
Source of medical care when sick						
Regular source	4.7	11.3	7.7	5.2	3.6	3.5
Regular provider	4.9	12.2	8.0	5.3	3.8	3.6
No regular provider	3.4	6.8	5.1	4.4	2.4	3.0
No regular source	1.9	4.9	4.0	1.3	1.3	1.5
Child's health insurance						
Covered	4.7	11.4	7.8	5.2	3.7	3.6
Medicaid	4.9	8.2	7.0	3.8	4.0	4.2
Private insurance	4.7	12.1	8.0	5.4	3.6	3.5
Not covered	3.3	8.7	5.9	3.7	2.5	1.8
Chronic conditions						
None	2.8	8.8	4.3	2.7	2.0	1.8
1 or more	6.6	17.4	11.2	7.8	5.2	5.2

[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 12. Number of days spent in bed during the past year for children 0–17 years of age, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	4.1	7.7	3.9	3.2	3.8	4.2
Sex						
Male	3.6	6.2	3.4	3.3	3.5	3.5
Female	4.6	9.3	4.5	3.1	4.0	5.0
Race						
White	4.3	8.7	3.3	3.3	4.0	4.7
Black	3.6	4.2	6.9	3.1	3.2	2.8
Asian, Pacific Islander	2.2	7.3	1.3	1.6	1.1	2.8
Native American	2.4	*12.2	*0.0	*0.0	1.6	2.0
Hispanic origin						
Hispanic	4.5	14.6	4.4	2.3	4.1	3.7
Mexican-American	3.7	10.8	5.9	0.8	3.1	3.1
All other Hispanic	5.3	19.1	3.3	3.9	5.2	4.1
Non-Hispanic	4.1	6.7	3.9	3.2	3.8	4.2
Geographical region						
Northeast	3.4	2.2	2.7	3.7	3.6	3.5
Midwest	3.9	11.4	2.7	2.6	3.2	4.3
South	4.1	6.7	5.5	3.2	3.8	3.9
West	4.9	9.4	3.8	3.6	4.7	5.2
Metro residence						
MSA[1]	4.0	7.8	3.6	3.2	3.6	4.3
Central city	3.8	7.7	3.4	3.6	3.3	3.8
Not central city	4.2	7.9	3.8	2.9	3.8	4.5
Non-MSA[1]	4.3	7.0	5.0	3.2	4.2	4.1
Parental education						
Less than high school graduate	4.3	14.4	3.6	2.0	4.3	3.9
High school graduate	3.9	7.3	5.1	3.4	3.5	3.5
Some college	4.6	8.4	4.3	3.5	3.9	5.2
College graduate	4.3	7.0	1.7	2.9	4.2	5.6
Some graduate school	3.6	5.3	2.2	3.3	3.7	3.8
Family income						
Less than $10,000	5.8	15.0	6.0	2.3	5.3	5.2
$10,000–$19,999	4.5	6.2	4.8	2.8	4.9	4.1
$20,000–$34,999	3.6	5.3	2.7	4.6	2.5	4.6
$35,000–$49,999	3.9	10.6	4.4	3.3	2.9	4.1
$50,000 or more	4.2	2.7	3.3	2.8	4.8	4.3
Welfare and/or poverty status						
Below poverty level	5.3	10.2	6.5	3.0	5.2	4.2
Received AFDC[2] past year	6.3	10.5	9.3	3.9	6.0	4.8
No AFDC[2] past year	4.0	9.7	2.7	1.6	4.2	3.7
At or above poverty level	3.8	6.9	3.1	3.3	3.4	4.2
Family structure						
Both biological parents	3.9	6.2	3.6	3.3	3.5	4.3
Biological mother only	4.8	13.3	5.0	1.8	4.5	4.7
Biological mother and stepfather	5.7	*0.0	10.3	11.4	5.3	5.3
Biological father only	5.0	*46.0	*0.0	*5.6	4.2	2.9
Biological father and stepmother	1.7	*28.0	*12.8	*0.0	0.3	2.0
Adoptive parents	3.8	*5.7	*5.8	10.2	0.7	4.8
Grandparents	3.3	*0.0	1.9	0.3	5.6	2.4
Other	2.4	6.1	0.6	1.3	1.8	3.0
Mother's age at first birth						
17 or younger	4.1	9.2	4.4	4.4	3.9	3.3
18–19	5.2	8.3	5.2	3.7	4.7	5.8
20–24	4.0	9.8	4.3	2.9	3.6	3.7
25–29	3.7	4.2	2.6	3.0	3.5	5.0
30 or older	4.1	7.5	3.4	2.9	3.7	4.8

See footnotes at end of table.

Table 12. Number of days spent in bed during the past year for children 0–17 years of age, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	4.2	7.6	4.0	3.6	3.1	4.1
Two	4.3	6.9	5.3	3.7	3.9	4.3
Three	4.1	7.2	1.4	2.6	3.9	5.0
Four	3.8	21.9	5.2	2.7	2.6	3.7
Five or more	3.3	0.0	0.0	0.0	5.8	2.1
Mother's employment status						
In labor force	3.8	6.5	3.4	3.3	3.6	4.1
Working for pay	3.8	6.0	3.0	3.2	3.5	4.2
Looking for work	4.7	10.2	7.2	4.1	4.5	2.6
Not in labor force	4.6	9.4	4.4	3.1	4.1	4.7
Prenatal care of mothers of children 0–5 years old						
Timely care	4.9	8.0	4.0	3.7	5.7	. . .
Late care or none	2.2	4.1	1.8	1.4	2.0	. . .
Child's birthweight						
Low birthweight	6.0	22.5	8.5	3.1	4.3	5.7
Very low: less than 1,500 grams	7.5	*49.0	*9.7	*2.7	10.1	1.5
Low: 1,500–2,500 grams	5.8	20.4	8.4	3.1	3.6	6.4
Non-low birthweight	4.0	6.9	3.7	3.3	3.8	4.2
Source of medical care when sick						
Regular source	4.2	7.1	4.0	3.4	3.9	4.5
Regular provider	4.2	6.9	4.1	3.4	3.8	4.5
No regular provider	4.4	7.7	3.8	2.8	4.6	4.1
No regular source	3.3	13.6	2.9	2.0	3.2	2.4
Child's health insurance						
Covered	4.2	8.3	4.1	3.4	3.7	4.2
Medicaid	6.2	11.4	9.1	2.0	5.4	6.2
Private insurance	3.9	7.6	3.3	3.7	3.5	4.1
Not covered	4.1	5.1	3.4	2.2	4.6	4.3
Chronic conditions						
None	2.8	7.2	1.9	1.7	2.7	2.5
1 or more	5.7	9.0	6.3	5.2	5.1	6.1

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 13. Number of short-stay hospital episodes during the past year per 1,000 children 0–17 years of age, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	49.2	159.0	87.9	36.3	26.6	45.9
Sex						
Male	52.1	189.6	90.4	43.4	32.5	37.6
Female	46.1	124.7	85.4	29.2	20.6	54.9
Race						
White	49.5	167.6	87.8	39.7	25.9	47.5
Black	52.7	180.0	93.4	23.8	33.2	44.8
Asian, Pacific Islander	21.2	97.2	54.0	30.1	6.4	4.3
Native American	71.6	*75.0	*0.0	*81.2	64.9	105.0
Hispanic origin						
Hispanic	44.5	129.3	84.3	27.3	36.2	29.1
Mexican-American	52.3	176.9	72.1	44.4	41.0	28.9
All other Hispanic	37.4	71.5	93.9	8.3	31.2	29.2
Non-Hispanic	50.0	168.1	90.1	38.7	25.4	48.2
Geographical region						
Northeast	37.1	97.2	74.7	42.2	16.2	35.6
Midwest	59.7	273.8	82.5	36.6	31.8	55.4
South	57.5	129.0	111.8	48.9	35.1	53.1
West	32.7	129.8	63.9	12.7	14.9	30.0
Metro residence						
MSA[1]	43.7	160.9	69.9	30.8	24.8	38.4
Central city	45.1	179.1	69.9	27.2	25.2	34.8
Not central city	42.8	145.9	69.9	33.3	24.5	40.5
Non-MSA[1]	66.6	152.4	149.4	54.5	32.2	69.2
Parental education						
Less than high school graduate	66.9	271.2	119.1	28.7	40.6	61.8
High school graduate	50.9	154.3	82.8	48.2	28.8	49.0
Some college	45.8	178.1	61.2	42.8	18.4	48.0
College graduate	44.5	98.8	124.2	22.2	25.7	29.7
Some graduate school	28.0	108.7	35.4	17.4	16.0	30.1
Family income						
Less than $10,000	91.4	351.8	171.4	37.6	50.9	59.5
$10,000–$19,999	50.2	139.0	88.4	30.2	20.8	57.9
$20,000–$34,999	47.4	131.7	92.3	39.5	23.6	46.9
$35,000–$49,999	31.9	160.7	26.6	39.7	15.8	29.2
$50,000 or more	37.5	77.1	57.4	24.2	30.2	38.7
Welfare and/or poverty status						
Below poverty level	81.3	284.4	137.6	28.2	46.7	68.8
Received AFDC[2] past year	96.2	292.2	165.9	42.6	64.8	65.9
No AFDC[2] past year	63.7	273.1	99.2	6.2	25.4	71.5
At or above poverty level	41.2	118.8	73.4	37.8	21.6	40.7
Family structure						
Both biological parents	44.5	141.1	73.3	32.1	21.4	43.0
Biological mother only	70.6	249.2	143.7	41.3	41.0	58.5
Biological mother and stepfather	45.9	*778.9	74.3	104.4	29.0	51.1
Biological father only	32.7	*179.6	*0.0	*14.3	11.4	43.7
Biological father and stepmother	32.9	*0.0	*668.3	*0.0	0.0	29.9
Adoptive parents	21.4	*93.5	*0.0	39.2	6.9	34.5
Grandparents	49.6	*264.7	144.3	0.0	18.5	44.3
Other	53.2	15.1	65.0	49.4	79.6	37.4
Mother's age at first birth						
17 or younger	68.8	303.6	131.0	29.3	33.8	60.1
18–19	58.0	159.7	145.0	27.4	37.9	48.3
20–24	44.1	151.5	69.4	40.3	21.2	44.8
25–29	43.1	144.9	63.5	35.7	27.4	31.0
30 or older	41.6	71.1	54.5	46.5	20.9	54.1

See footnotes at end of table.

Table 13. Number of short-stay hospital episodes during the past year per 1,000 children 0–17 years of age, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	63.4	127.0	99.4	41.3	32.9	51.0
Two	49.0	168.7	84.8	49.8	28.6	42.8
Three	45.3	217.1	111.6	16.3	23.5	42.9
Four	37.2	290.6	42.8	16.3	12.2	52.1
Five or more	34.3	0.0	0.0	0.0	37.5	49.1
Mother's employment status						
In labor force	45.1	133.6	91.7	43.7	23.7	43.1
Working for pay	44.4	127.7	89.1	44.4	24.1	43.0
Looking for work	55.9	176.3	122.6	34.6	17.5	44.8
Not in labor force	54.9	189.0	75.8	27.4	32.3	51.0
Prenatal care of mothers of children 0–5 years old						
Timely care	73.6	149.2	90.6	36.1	31.4	. . .
Late care or none	67.8	179.0	30.8	53.4	20.8	. . .
Child's birthweight						
Low birthweight	71.4	511.9	131.7	22.0	37.0	42.4
Very low: less than 1,500 grams	86.3	*638.4	*311.8	*23.6	17.7	65.1
Low: 1,500–2,500 grams	69.5	501.7	110.9	21.8	39.4	39.2
Non-low birthweight	48.0	138.6	85.6	37.3	26.4	46.2
Source of medical care when sick						
Regular source	50.6	164.1	89.8	36.7	28.4	46.3
Regular provider	50.3	168.2	85.7	39.8	27.3	46.9
No regular provider	52.5	143.5	121.8	15.1	35.2	42.1
No regular source	29.7	116.1	67.4	28.3	3.8	31.5
Child's health insurance						
Covered	51.7	175.0	93.4	35.0	29.5	47.0
Medicaid	104.5	241.2	165.7	32.5	84.3	85.2
Private insurance	44.7	159.6	80.6	35.4	22.6	43.1
Not covered	30.2	61.4	58.0	41.1	11.1	30.2
Chronic conditions						
None	16.1	75.5	19.0	12.7	5.6	13.3
1 or more	90.5	422.5	170.2	67.3	51.5	83.3

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 14. Percent of children 0–17 years of age who rarely or never wear seatbelts, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	30.1	8.2	12.7	22.7	32.7	40.3
Sex						
Male	30.6	10.0	12.5	21.3	32.6	42.1
Female	29.6	6.1	12.8	24.2	32.7	38.3
Race						
White	27.7	5.6	8.5	19.7	29.4	38.7
Black	42.0	15.4	29.4	37.5	47.0	47.1
Asian, Pacific Islander	29.9	21.1	19.6	20.9	36.1	32.0
Native American	48.4	*18.9	*13.5	*57.4	56.7	60.5
Hispanic origin						
Hispanic	36.3	11.6	21.7	30.8	39.6	45.3
Mexican-American	36.1	11.9	25.7	31.6	41.9	40.6
All other Hispanic	36.5	11.3	18.4	29.8	37.2	48.4
Non-Hispanic	29.5	7.7	11.7	21.6	31.7	39.7
Geographical region						
Northeast	30.9	6.5	11.8	23.4	30.2	46.5
Midwest	31.0	7.8	11.3	22.3	33.8	41.8
South	32.9	7.4	14.7	27.0	38.6	39.6
West	23.7	10.9	11.5	16.4	23.6	33.9
Metro residence						
MSA[1]	27.5	6.8	11.5	21.2	29.6	37.4
Central city	31.8	12.5	16.0	24.3	35.1	41.9
Not central city	24.8	1.9	8.3	19.1	26.2	34.7
Non-MSA[1]	38.3	13.0	16.6	27.8	42.1	49.1
Parental education						
Less than high school graduate	50.5	34.0	26.3	43.7	54.6	57.6
High school graduate	36.1	7.5	16.5	29.1	39.1	47.1
Some college	24.9	5.2	8.6	17.0	26.8	34.8
College graduate	17.3	2.1	5.9	11.2	18.4	28.2
Some graduate school	16.3	1.5	3.9	12.2	18.2	22.5
Family income						
Less than $10,000	44.4	22.2	25.5	33.8	52.2	53.0
$10,000–$19,999	37.5	9.2	20.7	32.1	41.6	49.2
$20,000–$34,999	29.5	4.9	9.5	23.1	32.5	41.1
$35,000–$49,999	24.1	3.6	4.7	13.5	23.5	37.1
$50,000 or more	17.3	0.9	3.8	10.9	18.3	23.4
Welfare and/or poverty status						
Below poverty level	44.4	22.2	27.2	34.8	51.4	53.6
Received AFDC[2] past year	45.0	21.5	29.8	37.1	51.9	55.2
No AFDC[2] past year	43.8	23.4	23.5	31.3	50.8	52.0
At or above poverty level	26.6	3.6	8.3	19.7	27.8	37.7
Family structure						
Both biological parents	25.9	5.4	9.6	21.4	28.7	37.3
Biological mother only	39.8	18.2	26.8	30.1	44.6	45.9
Biological mother and stepfather	36.7	*–	22.7	27.8	35.0	39.9
Biological father only	36.2	*20.8	*23.3	*15.2	29.5	48.0
Biological father and stepmother	49.4	*–	*–	*26.6	50.7	51.6
Adoptive parents	20.6	*–	*15.0	12.3	12.3	36.9
Grandparents	33.5	*28.2	7.3	18.1	39.6	40.6
Other	36.1	13.9	9.5	19.2	39.5	45.1
Mother's age at first birth						
17 or younger	42.7	16.4	29.0	34.1	46.6	49.6
18–19	39.8	11.3	17.5	32.8	44.0	47.7
20–24	29.6	8.2	11.9	24.3	32.1	37.6
25–29	18.3	4.1	6.5	13.7	19.8	29.2
30 or older	19.3	4.0	4.5	13.8	22.7	37.7

See footnotes at end of table.

Table 14. Percent of children 0–17 years of age who rarely or never wear seatbelts, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	23.9	3.9	10.0	19.0	30.4	36.7
Two	26.4	8.7	12.6	19.5	26.0	37.9
Three	34.2	11.0	17.1	26.3	35.4	42.5
Four	38.7	12.2	13.5	32.3	41.4	45.6
Five or more	47.6	30.9	15.2	44.6	54.8	48.2
Mother's employment status						
In labor force	29.8	5.6	10.4	23.6	31.6	38.7
Working for pay	29.4	5.8	9.6	22.9	30.9	38.5
Looking for work	35.1	4.2	18.7	32.2	42.7	42.8
Not in labor force	30.6	10.7	15.0	22.0	34.8	43.4
Prenatal care of mothers of children 0–5 years old						
Timely care	15.7	6.4	11.2	20.6	25.1	. . .
Late care or none	27.9	17.9	22.3	41.3	26.2	. . .
Child's birthweight						
Low birthweight	35.1	5.4	16.5	26.6	41.1	41.6
Very low: less than 1,500 grams	23.1	*–	*11.7	*12.6	29.6	23.7
Low: 1500–2500 grams	36.6	5.8	17.1	28.1	42.6	44.1
Non-low birthweight	29.6	8.4	12.4	22.6	32.0	40.0
Source of medical care when sick						
Regular source	29.2	7.5	11.9	22.3	31.8	39.5
Regular provider	27.9	5.6	10.7	20.4	30.6	38.2
No regular provider	38.1	17.5	21.8	35.5	39.7	47.2
No regular source	42.1	17.5	26.1	30.8	46.7	47.3
Child's health insurance						
Covered	28.9	7.5	11.9	22.5	30.9	38.8
Medicaid	44.6	21.9	31.1	41.3	51.3	53.0
Private insurance	26.8	4.2	8.6	19.5	28.4	37.4
Not covered	36.8	11.6	16.5	25.2	42.3	48.4
Chronic conditions						
None	30.9	7.3	13.1	24.7	34.7	41.8
1 or more	29.2	10.8	12.1	20.3	30.4	38.6

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 15. Percent of children 3–17 years of age who have not seen a dentist in the past 2 years, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*3–4 years*	*5–11 years*	*12–17 years*
All children	18.1	49.9	14.1	12.2
Sex				
Male	18.7	51.0	14.4	13.2
Female	17.5	48.8	13.7	11.1
Race				
White	16.5	48.3	12.8	10.7
Black	23.6	57.8	19.5	18.2
Asian, Pacific Islander	21.2	53.2	15.3	13.7
Native American	23.1	*37.2	26.0	13.8
Hispanic origin				
Hispanic	28.9	57.1	24.2	23.0
Mexican-American	31.4	59.7	25.9	24.5
All other Hispanic	26.7	54.1	22.5	22.0
Non-Hispanic	16.5	48.9	12.8	10.8
Geographical region				
Northeast	12.5	44.7	8.8	6.2
Midwest	14.3	46.2	10.5	8.1
South	24.0	59.2	19.2	18.7
West	18.0	45.2	14.7	11.7
Metro residence				
MSA[1]	17.4	49.0	13.4	11.3
Central city	19.9	47.3	15.8	14.3
Not central city	15.9	50.3	11.9	9.6
Non-MSA[1]	20.2	53.0	16.1	14.7
Parental education				
Less than high school graduate	31.2	55.8	30.2	25.8
High school graduate	21.4	59.2	15.8	15.5
Some college	14.4	49.2	11.1	6.5
College graduate	10.2	38.1	5.8	4.2
Some graduate school	8.7	32.5	5.2	4.6
Family income				
Less than $10,000	26.3	49.7	23.4	21.1
$10,000–$19,999	27.7	61.5	22.6	20.2
$20,000–$34,999	19.3	51.0	14.2	14.0
$35,000–$49,999	10.4	38.8	6.4	6.4
$50,000 or more	8.2	41.2	4.0	4.0
Welfare and/or poverty status				
Below poverty level	27.0	50.9	23.7	21.7
Received AFDC[2] past year	20.0	45.4	15.5	14.1
No AFDC[2] past year	35.2	59.7	33.5	29.3
At or above poverty level	16.0	49.6	11.5	10.4
Family structure				
Both biological parents	18.4	50.5	13.3	11.2
Biological mother only	19.7	48.8	16.8	13.7
Biological mother and stepfather	16.1	52.8	15.9	13.3
Biological father only	17.0	*43.6	18.9	9.9
Biological father and stepmother	11.2	*53.0	9.3	11.3
Adoptive parents	10.3	19.4	7.4	10.9
Grandparents	19.3	48.7	11.2	21.1
Other	18.5	55.1	13.1	15.3
Mother's age at first birth				
17 or younger	25.4	59.1	22.4	19.6
18–19	21.7	54.0	20.7	14.7
20–24	16.9	54.5	12.2	11.0
25–29	13.6	42.4	9.1	5.4
30 or older	15.2	36.8	7.8	13.6

See footnotes at end of table.

Table 15. Percent of children 3–17 years of age who have not seen a dentist in the past 2 years, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family				
One	18.7	54.3	12.1	11.6
Two	16.6	49.1	12.1	9.2
Three	17.2	44.7	14.3	12.8
Four	21.2	60.5	18.1	16.1
Five or more	24.6	45.1	23.0	22.7
Mother's employment status				
In labor force	16.2	50.7	12.7	10.4
Working for pay	15.8	49.7	12.3	10.2
Looking for work	22.9	64.1	18.6	13.8
Not in labor force	21.7	49.3	16.2	16.3
Prenatal care of mothers of children 0–5 years old				
Timely care	41.9	50.7	24.7	. . .
Late care or none	41.8	49.3	22.5	. . .
Child's birthweight				
Low birthweight	21.7	54.8	18.8	13.9
Very low: less than 1,500 grams	13.5	*45.2	10.5	7.9
Low: 1,500–2,500 grams	22.7	55.9	19.8	14.7
Non-low birthweight	17.8	49.7	13.5	11.9
Source of medical care when sick				
Regular source	17.0	48.8	12.9	10.9
Regular provider	16.1	47.7	11.9	10.1
No regular provider	22.8	56.2	19.5	15.9
No regular source	34.5	71.6	33.7	27.1
Child's health insurance				
Covered	15.7	47.5	11.4	9.9
Medicaid	22.1	48.5	16.4	16.5
Private insurance	14.9	47.3	10.8	9.2
Not covered	32.4	66.6	29.5	25.7
Chronic conditions				
None	19.4	50.7	15.2	13.4
1 or more	16.6	49.0	12.8	10.8

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[1] MSA is metropolitan statistical area.
[2] AFDC is Aid to Families with Dependent Children.

Table 16. Percent of children 1–17 years of age who have a late or irregular bedtime, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	17.0	29.0	26.9	14.4	12.5
Sex					
Male	17.3	27.8	26.8	14.8	13.4
Female	16.7	30.3	27.0	14.0	11.6
Race					
White	14.8	25.8	23.0	12.5	11.2
Black	25.7	43.7	46.5	21.4	18.0
Asian, Pacific Islander	22.3	33.0	22.9	24.0	15.8
Native American	16.8	*19.1	*40.1	17.0	6.4
Hispanic origin					
Hispanic	22.4	38.6	34.7	19.3	15.9
Mexican-American	20.2	38.8	29.4	18.7	10.5
All other Hispanic	24.3	38.4	40.7	19.9	19.5
Non-Hispanic	16.2	27.9	26.0	13.6	12.0
Geographical region					
Northeast	15.7	23.2	25.3	11.8	14.3
Midwest	17.0	31.8	28.8	14.0	11.4
South	20.4	33.6	33.8	18.0	14.1
West	12.5	22.9	15.8	11.0	9.5
Metro residence					
MSA[1]	17.3	27.7	26.2	15.0	13.1
Central city	21.2	32.5	32.0	17.8	16.7
Not central city	14.8	24.4	22.1	13.2	10.9
Non-MSA[3]	16.2	33.5	29.5	12.6	10.8
Parental education					
Less than high school graduate	22.9	38.8	42.4	20.7	15.4
High school graduate	18.9	33.9	32.2	15.9	12.8
Some college	14.8	24.7	25.5	12.0	11.1
College graduate	13.3	24.9	15.3	11.5	9.3
Some graduate school	12.4	16.1	13.5	11.0	12.4
Family income					
Less than $10,000	23.4	38.2	38.8	19.5	15.3
$10,000–$19,999	19.0	38.0	28.8	14.7	12.0
$20,000–$34,999	16.5	25.0	29.2	13.9	11.7
$35,000–$49,999	13.1	24.2	17.8	11.1	10.5
$50,000 or more	13.2	17.2	15.1	12.2	12.6
Welfare and/or poverty status					
Below poverty level	23.5	41.5	36.9	19.1	15.2
Received AFDC[2] past year	25.7	51.8	33.0	19.6	16.6
No AFDC[2] past year	20.7	26.8	43.0	18.5	13.8
At or above poverty level	15.4	25.4	24.3	13.1	11.9
Family structure					
Both biological parents	16.2	27.0	26.3	13.3	10.5
Biological mother only	22.0	38.8	32.6	18.6	17.1
Biological mother and stepfather	14.5	47.8	40.2	13.3	11.8
Biological father only	17.3	*27.4	*9.1	16.8	18.6
Biological father and stepmother	10.6	*26.1	*15.3	10.3	10.1
Adoptive parents	8.3	*16.7	8.6	5.6	9.0
Grandparents	16.2	18.7	14.6	15.4	16.4
Other	17.7	31.7	16.4	18.9	14.3
Mother's age at first birth					
17 or younger	21.8	48.4	40.5	18.0	13.0
18–19	19.8	38.6	35.6	17.6	13.1
20–24	16.3	25.9	27.3	14.2	12.1
25–29	14.2	23.5	20.7	10.8	11.2
30 or older	14.9	19.3	16.1	12.1	16.1

See footnotes at end of table.

Table 16. Percent of children 1–17 years of age who have a late or irregular bedtime, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family					
One	21.8	34.8	35.3	16.7	13.5
Two	15.2	26.7	21.8	12.6	11.8
Three	16.4	25.5	28.7	14.2	13.1
Four	17.3	29.4	26.9	15.9	13.7
Five or more	15.9	16.4	32.0	18.6	9.6
Mother's employment status					
In labor force	16.4	27.4	26.6	14.6	12.2
Working for pay	16.0	26.4	25.4	14.2	12.3
Looking for work	22.6	39.0	42.0	21.4	11.0
Not in labor force	18.2	30.5	28.0	13.9	12.9
Prenatal care of mothers of children 0–5 years old					
Timely care	24.6	28.0	26.6	13.4	. . .
Late care or none	37.4	34.3	44.6	26.9	. . .
Child's birthweight					
Low birthweight	17.0	29.0	26.7	15.0	12.0
Very low: less than 1,500 grams	17.4	*35.2	*20.4	8.2	21.5
Low: 1500–2500 grams	17.0	28.3	27.4	15.9	10.7
Non-low birthweight	16.9	28.9	26.9	14.2	12.4
Source of medical care when sick					
Regular source	16.6	28.5	25.7	13.9	12.2
Regular provider	15.9	26.9	24.6	13.3	11.6
No regular provider	21.1	40.1	32.6	17.2	16.0
No regular source	22.3	36.9	50.2	21.4	14.6
Child's health insurance					
Covered	16.3	28.7	26.2	13.6	11.7
Medicaid	25.3	46.7	35.9	18.7	17.1
Private insurance	15.2	25.6	24.7	13.0	11.2
Not covered	20.4	29.9	31.2	18.1	15.9
Chronic conditions					
None	17.0	30.0	27.5	14.5	11.5
1 or more	17.0	27.9	26.2	14.2	13.6

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

NOTE: For children ages 12 years and under, later than 10 p.m. was considered late. For teenagers ages 13–17, 11:30 p.m. was considered late. Irregular bedtime was a bedtime that the respondent reported to vary substantially from night to night.

Table 17. Percent of children 0–17 years of age who currently live or have lived during the past year in a household with a smoker, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	43.8	38.5	42.9	41.2	44.5	45.2
Sex						
Male	44.1	39.2	42.8	42.0	44.7	45.6
Female	43.4	37.7	42.9	40.3	44.2	44.7
Race						
White	44.1	36.7	42.9	41.2	45.2	45.4
Black	46.6	52.2	48.1	49.8	44.0	46.9
Asian, Pacific Islander	29.2	28.0	30.3	21.6	33.7	26.4
Native American	38.1	*23.0	*15.3	*20.5	45.7	50.4
Hispanic origin						
Hispanic	39.3	35.0	33.7	31.4	41.4	42.8
Mexican-American	36.9	33.4	24.5	34.6	37.5	43.1
All other Hispanic	41.5	36.9	41.2	27.7	45.4	42.6
Non-Hispanic	44.5	39.3	43.6	43.0	45.0	45.6
Geographical region						
Northeast	44.8	42.2	43.2	39.6	45.4	47.0
Midwest	45.5	41.5	44.7	43.6	47.2	45.1
South	46.4	40.0	47.7	44.7	47.1	46.9
West	36.3	30.3	31.6	34.5	35.7	40.7
Metro residence						
MSA[1]	42.8	39.6	42.5	40.3	43.3	43.8
Central city	43.7	39.8	42.8	42.2	44.9	44.1
Not central city	42.2	39.4	42.3	39.0	42.3	43.6
Non-MSA[1]	47.0	34.8	43.9	44.1	48.1	49.6
Parental education						
Less than high school graduate	57.6	57.9	61.3	54.2	57.2	57.7
High school graduate	52.9	51.3	54.5	49.8	53.9	52.4
Some college	43.6	32.0	40.4	41.9	43.3	47.6
College graduate	27.4	16.7	25.3	27.6	28.4	29.7
Some graduate school	18.9	15.2	15.7	17.7	20.7	18.8
Family income						
Less than $10,000	55.3	51.4	56.7	52.6	57.8	52.7
$10,000–$19,999	52.6	46.9	50.8	51.9	53.0	54.5
$20,000–$34,999	44.4	36.9	39.0	41.5	47.1	45.7
$35,000–$49,999	38.1	31.8	34.3	33.0	37.6	42.3
$50,000 or more	30.5	17.1	29.3	28.6	28.5	35.1
Welfare and/or poverty status						
Below poverty level	55.2	52.7	55.7	48.8	56.6	56.2
Received AFDC[2] past year	57.9	59.4	59.0	49.8	60.8	56.2
No AFDC[2] past year	51.8	42.5	51.0	47.1	51.5	56.1
At or above poverty level	41.0	34.0	39.0	39.3	41.4	43.0
Family structure						
Both biological parents	39.0	33.0	38.7	37.1	39.5	40.7
Biological mother only	49.7	59.1	57.1	50.1	50.4	44.5
Biological mother and stepfather	60.6	*40.4	80.3	51.4	60.1	61.1
Biological father only	58.2	*62.2	*66.2	*61.2	55.7	58.8
Biological father and stepmother	53.2	*46.1	*56.7	*38.1	57.6	51.0
Adoptive parents	31.7	*39.6	*20.9	15.8	32.3	38.9
Grandparents	57.5	*–	67.1	76.7	60.9	50.0
Other	49.9	44.5	35.5	55.5	49.4	52.6
Mother's age at first birth						
17 or younger	58.3	55.8	59.1	50.9	58.2	60.7
18–19	54.1	52.6	56.6	48.0	54.2	55.2
20–24	42.7	38.9	42.3	46.0	44.6	40.2
25–29	30.4	25.2	30.2	29.8	30.3	32.7
30 or older	36.3	29.2	35.1	33.9	37.1	41.1

See footnotes at end of table.

Table 17. Percent of children 0–17 years of age who currently live or have lived during the past year in a household with a smoker, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	46.7	40.2	47.3	45.5	50.1	46.5
Two	43.5	35.3	41.2	40.6	44.5	45.5
Three	44.3	44.3	43.7	40.7	44.1	45.7
Four	41.9	37.1	34.5	35.8	43.2	43.9
Five or more	36.5	27.0	31.2	37.3	35.6	39.7
Mother's employment status						
In labor force	43.2	36.7	42.0	42.5	44.3	43.4
Working for pay	42.4	35.2	41.2	42.3	43.6	42.5
Looking for work	54.1	48.6	51.8	46.1	56.3	56.9
Not in labor force	44.2	39.1	43.5	38.9	44.3	48.7
Prenatal care of mothers of children 0–5 years old						
Timely care	40.0	37.8	41.8	37.8	43.0	. . .
Late care or none	51.7	59.2	48.4	51.0	50.0	. . .
Child's birthweight						
Low birthweight	51.6	44.3	54.3	59.8	51.0	49.7
Very low: less than 1,500 grams	59.7	*38.8	*52.2	*86.5	67.6	45.7
Low: 1,500–2,500 grams	50.6	44.8	54.5	56.7	48.9	50.2
Non-low birthweight	43.1	38.1	41.9	39.9	43.9	44.8
Source of medical care when sick						
Regular source	43.3	38.6	42.0	40.7	44.2	44.6
Regular provider	42.6	37.7	40.9	40.0	43.9	43.6
No regular provider	48.1	43.4	50.4	45.1	46.5	51.2
No regular source	49.0	34.5	60.9	51.4	47.0	50.0
Child's health insurance						
Covered	43.0	38.1	40.8	40.0	43.9	44.6
Medicaid	56.2	55.0	57.9	48.9	58.1	56.9
Private insurance	41.2	34.2	37.8	38.6	42.1	43.4
Not covered	48.5	41.3	53.6	50.2	47.9	48.2
Chronic conditions						
None	42.8	37.9	41.8	40.1	44.2	43.9
1 or more	44.9	40.5	44.1	42.6	44.7	46.6

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[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Table 18. Number of children 0–17 years of age, by age of child and selected family characteristics: United States, 1988

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
All children	63,569	3,858	7,501	7,065	24,649	20,495
Sex						
Male	32,526	2,041	3,864	3,534	12,445	10,642
Female	31,043	1,817	3,637	3,531	12,204	9,854
Race						
White	49,062	2,795	5,469	5,306	19,346	16,146
Black	9,809	626	1,183	983	3,805	3,211
Asian, Pacific Islander	1,634	119	196	218	614	487
Native American	976	46	150	135	367	277
Hispanic origin						
Hispanic	7,239	502	772	919	2,863	2,182
Mexican-American	3,432	275	338	482	1,460	877
All other Hispanic	3,807	227	434	437	1,403	1,306
Non-Hispanic	55,031	3,163	6,349	5,852	21,522	18,145
Geographical region						
Northeast	11,621	702	1,390	1,286	4,553	3,690
Midwest	16,574	950	1,883	1,873	6,484	5,384
South	22,149	1,323	2,717	2,319	8,545	7,246
West	13,225	883	1,512	1,587	5,067	4,176
Metro residence						
MSA[1]	48,314	2,992	5,800	5,418	18,599	15,504
Central City	18,972	1,356	2,407	2,235	7,142	5,833
Not central city	29,342	1,636	3,394	3,183	11,457	9,671
Non-MSA[1]	15,255	866	1,701	1,647	6,049	4,992
Parental education						
Less than high school graduate	8,447	399	960	789	3,280	3,019
High school graduate	23,316	1,344	2,644	2,621	9,171	7,537
Some college	14,433	880	1,658	1,633	5,394	4,868
College graduate	8,285	547	1,120	1,036	3,295	2,287
Some graduate school	7,568	429	850	850	3,063	2,376
Family income						
Less than $10,000	7,924	603	1,102	880	3,222	2,118
$10,000–$19,999	10,911	744	1,499	1,331	4,121	3,217
$20,000–$34,999	17,022	1,023	2,078	1,993	6,754	5,175
$35,000–$49,999	11,403	613	1,201	1,207	4,415	3,967
$50,000 or more	9,179	402	897	897	3,527	3,455
Welfare and/or poverty status						
Below poverty level	12,478	943	1,759	1,420	5,029	3,327
Received AFDC[2] past year	6,758	558	1,011	860	2,721	1,609
No AFDC[2] past year	5,720	385	748	560	2,308	1,719
At or above poverty level	50,796	2,907	5,690	5,611	19,523	17,065
Family structure						
Both biological parents	38,999	2,805	5,338	4,911	15,059	10,887
Biological mother only	11,827	704	1,322	1,309	4,596	3,897
Biological mother and stepfather	4,861	12	113	203	2,135	2,399
Biological father only	982	34	29	85	361	473
Biological father and stepmother	958	4	22	17	344	572
Adoptive parents	823	19	87	97	341	279
Grandparents	1,194	28	162	100	452	452
Other	2,419	128	203	217	776	1,095
Mother's age at first birth						
17 or younger	8,222	490	866	825	3,188	2,852
18–19	11,330	609	1,147	1,055	4,468	4,050
20–24	24,159	1,300	2,788	2,528	9,085	8,457
25–29	12,454	951	1,637	1,687	5,199	2,979
30 or older	4,765	435	826	715	1,872	916

See footnotes at end of table.

Table 18. Number of children 0–17 years of age, by age of child and selected family characteristics: United States, 1988—Con.

Selected family characteristic	*All ages*	*Less than 1 year*	*1–2 years*	*3–4 years*	*5–11 years*	*12–17 years*
Children in family						
One	13,352	1,587	2,543	1,506	3,520	4,195
Two	25,263	1,297	2,773	3,222	10,275	7,695
Three	15,240	654	1,332	1,566	6,541	5,146
Four	6,071	176	533	513	2,729	2,120
Five or more	3,644	144	320	258	1,583	1,339
Mother's employment status						
In labor force	39,556	1,984	4,042	4,037	15,475	14,018
Working for pay	36,984	1,743	3,721	3,751	14,552	13,217
Looking for work	2,572	240	321	287	923	801
Not in labor force	22,773	1,736	3,357	2,920	8,811	5,948
Prenatal care of mothers of children 0–5 years old						
Timely care	15,291	2,671	5,192	4,946	2,481	. . .
Late care or none	1,448	304	516	455	173	. . .
Child's birthweight						
Low birthweight	4,463	224	499	507	1,811	1,423
Very low: less than 1,500 grams	500	17	51	52	201	178
Low: 1500–2500 grams	3,963	207	447	455	1,609	1,244
Non-low birthweight	57,007	3,550	6,853	6,375	22,157	18,072
Source of medical care when sick						
Regular source	57,869	3,520	7,007	6,546	22,714	18,081
Regular provider	50,123	2,937	6,194	5,708	19,711	15,572
No regular provider	7,746	583	813	838	3,002	2,509
No regular source	4,146	251	336	372	1,434	1,752
Child's health insurance						
Covered	52,812	3,101	6,117	6,049	20,613	16,931
Medicaid	6,192	585	920	831	2,319	1,537
Private insurance	46,620	2,516	5,198	5,218	18,294	15,394
Not covered	8,962	670	1,223	853	3,373	2,843
Chronic conditions						
None	35,299	2,927	4,080	4,005	13,343	10,944
1 or more	28,232	929	3,419	3,060	11,288	9,535

[1] MSA is metropolitan statistical area.

[2] AFDC is Aid to Families with Dependent Children.

Appendixes

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Appendix I
Technical notes on methods

Statistical design of the NHIS

The NHIS has been conducted continuously since 1957. The sample design of the survey has undergone changes following each decennial census. This periodic redesign of the NHIS sample allows the incorporation of the latest population information and statistical methodology into the design. The data presented in this report were collected using an NHIS sample design first used in 1985. It is anticipated that this design will be used until 1995. A complete description of the sample design is in the publication entitled ‘‘Design and Estimation for the National Health Interview Survey, 1985–94’’ (19).

The sampling scheme for the NHIS follows a multistage probability design that permits continuous sampling of the civilian noninstitutionalized population residing in the United States. The survey is designed so that the sample scheduled for each week is representative of the target population and that the weekly samples are additive over time. This design permits estimates for frequent events or for large population groups to be produced from data collected over a short period of time. The annual sample is designed so that tabulations can be provided for each of the four major geographic regions. Because interviewing is done throughout the year, there is no seasonal bias for annual estimates. The continuous data collection also has administrative and operational advantages because field work can be handled on a continuing basis with an experienced, stable staff.

The target population for the NHIS is the civilian noninstitutionalized population residing in the United States. For the first stage of sample design, the United States is considered to be a universe of approximately 1,900 geographically defined primary sampling units (PSU’s). A PSU consists of a county, small group of contiguous counties, or a metropolitan statistical area (MSA). The PSU’s collectively cover the 50 States and the District of Columbia. The 52 largest PSU’s in the universe are referred to as self-representing PSU’s. The other PSU’s are chosen from each stratum with a probability proportional to population size. The selection of two PSU’s per stratum allows more efficient variance estimation than was possible under the pre-1985 NHIS design in which only one PSU was selected per stratum. The current procedure yields a total of 198 PSU’s selected in the second stage.

Within a PSU, two types of second stage units, referred to as segments, are used: area segments and permit area segments. Area segments are defined geographically and contain an expected eight households. Permit area segments cover geographical areas containing housing units built after the 1980 census. The permit area segments are defined using updated lists of building permits issued in the PSU since 1980 and contain an expected four households.

Within each segment, all occupied households are targeted for interview. On occasion, a sample segment may contain a large number of households. In this situation, the households are subsampled to provide a manageable interviewer workload.

To increase the precision of estimates for black persons, differential sampling rates are applied in PSU’s containing a 5–50 percent black population. Within these PSU’s, sampling rates for selecting segments are increased in areas known to have the highest concentration of black persons and segment sampling rates are decreased in other areas within those PSU’s to ensure that the total sample is the same size as it would have been without oversampling black persons.

The sample was designed so that a typical NHIS full sample for the data collection years 1985–95 will consist of approximately 7,500 segments containing about 59,000 assigned households. Of these households, an expected 10,000 will be vacant, demolished, or occupied by persons not in the target population of the survey. The expected sample of 449,000 occupied households will yield a probability sample of about 127,000 persons.

The NHIS sample is designed so that it can serve as a sample frame for other NCHS population-based surveys. Four national subdesigns, or panels, constitute the full NHIS sample design. Each panel contains a representative sample of the U.S. civilian noninstitutionalized population. All four panels have identical sampling properties, and any combination of panels defines a national design. Panels were constructed to facilitate the linkage of the NHIS to other surveys and also to efficiently make large reductions in the size of the sample by eliminating panels from the survey when budgetary constraints make this necessary.

In 1988, the NHIS sample consisted of 8,571 segments containing 62,154 assigned households. Of the 50,061 households eligible for interview, 47,485 households were interviewed, resulting in a sample of 122,310 persons. The total noninterview rate was 5.1 percent; 3.0 percent was the result of respondent refusal, and the remainder was primarily the result of failure to locate an eligible respondent at home after repeated calls.

Collection and processing of data

The NHIS questionnaire contains two major parts:

- The first, the basic health and demographic component, consists of topics that remain relatively unchanged from year to year. Among these topics are the incidence of acute conditions, the prevalence of chronic conditions, the number of persons limited in activity due to impairment or health problems, and utilization of health care services involving physician care and short-stay hospitalization.
- The second part, a special topics component, consists of additional topics that change from year to year.

Careful procedures are followed to ensure the quality of data collected in the NHIS interview. Most households in the sample are contacted by mail before the interviewer arrives. Potential respondents are informed of the importance of the survey and assured that all information obtained in the interview will be held in strict confidence. Interviewers make repeated trips to a household when a respondent is not found on the first visit. The success of these procedures is indicated by the response rate for the survey, which has been between 95–98 percent over the years.

When contact is made, the interviewer tries to have all family members of the household 19 years of age and over present during the interview. When this is not possible, proxy respondents for absent family members are accepted. In most situations, proxy respondents are used for persons under 19 years of age. Persons 17–18 years of age may respond for themselves, however.

Interviewers undergo extensive training and retraining. The quality of their work is checked by periodic observation and by reinterview. Their work also is evaluated by statistical studies of the data they obtain in their interviews. A field edit is performed on all completed interviews so that if there are any problems with the information on the questionnaire, respondents may be recontacted to solve the problem.

Completed questionnaires are sent from the U.S. Bureau of the Census field offices to NCHS for coding and editing. To ensure the accuracy of coding, a 5-percent sample of all questionnaires is recoded and keyed in by other coders. A 100-percent verification procedure is used if certain error tolerances are exceeded. Staff of the Division of Health Interview Statistics then edit files to remove impossible and inconsistent codes.

Estimation procedures

The complex, multistage probability sample utilized by the NHIS must be reflected in the derivation of survey-based estimates. The weight for each sample child was derived from his or her final annual weight on the core NHIS. This weight is the product of up to four components:

1. Probability of selection—The basic weight for each NHIS respondent is obtained by multiplying the reciprocals of the probabilities of selection at each step of the design: PSU, segment, and household.
2. Household nonresponse adjustment within segment—Because of household nonresponse on the basic NHIS health and demographic questionnaire, a weighting adjustment is required. The nonresponse adjustment weight is a ratio with the number of households in a sample segment as the numerator and the number of households actually interviewed in that segment as the denominator. This adjustment reduces bias in an estimate to the extent that persons in the noninterviewed households have the same characteristics as persons in interviewed households in the same segment.
3. First-stage ratio adjustment—The weight for persons in the non-self-representing PSU's is ratio adjusted to the 1980 population within four race-residence classes of the non-self-representing strata within each geographic region.
4. Poststratification by age-race-sex—Within each of 60 age-race-sex cells, a weight is constructed each quarter to adjust the first-stage population estimates based on the NHIS to an independent estimate of the population of each cell. These independent estimates are prepared by the U.S. Bureau of the Census and are updated quarterly.

The main effect of the ratio-estimating process (component 3 above) is to make the sample more closely representative of the target population by age, sex, race, and residence. The poststratification adjustment (component 4 above) helps to reduce the component of bias resulting from sampling frame undercoverage; furthermore, this adjustment frequently reduces sampling variance.

Unlike the basic NHIS sample, which included all persons in each sample household, the NHIS-CH sample was restricted to a single sample child randomly selected within each family. Thus, the NHIS-CH weight included an additional component (5 below), designed to incorporate the probability of selection within the family. After this component was incorporated, a final poststratification adjustment (6 below) was made.

5. Adjustment for the probability of selection within family—For each NHIS-CH sample child, his or her final annual weight for the basic NHIS (the product of the four weights described above) was multiplied by the within-family sampling weight, which is the inverse of the child's probability of selection within the family. For example, in a family of three children, the sample child had a 1 in 3 probability of selection; thus, that child's weight was multiplied by 3.
6. Secondary poststratification by age-race-sex—Finally, an additional poststratification was performed so that the distribution of children in the NHIS-CH sample matched that of all children in the basic NHIS sample. Sixteen age-sex-race categories were used in this final poststratification. Among children identified as eligible for the NHIS-CH on the basis of the basic NHIS household listing, there was an additional 5-percent nonresponse rate. Although the NHIS estimation procedures include no separate adjustment factor to reduce the bias due to this type of nonresponse, the poststratification by age, sex, and race also serves to reduce the nonresponse bias in estimates

derived from the special topics sections, to the extent that nonrespondents to the special topics questionnaire are similar to respondents in each poststratification adjustment cell.

Reliability of estimates

Because NHIS estimates are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same survey and processing procedures. There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling errors. To the extent possible, these types of errors are kept to a minimum by methods built into the survey procedures and described elsewhere (42). Several studies have been conducted to examine the extent of bias in the NHIS (43,44).

The standard error is the primary measure of sampling error, that is, the variation that might occur by chance because only a sample of a population is surveyed. The chances are about 68 in 100 that an estimate based on a sample would differ from that obtained from a complete census by less than 1 standard error. The chances are about 95 in 100 that the difference between a sample-based and census estimate would differ by less than twice the standard error of the estimate, and about 99 in 100 that it would differ by less than a factor of 2.5.

Standard errors for percents and rates shown in this report and standard error of the difference between percents and rates were calculated using formulas described in ''Current Estimates from the National Health Interview Survey: United States, 1988'' (20).

Terms used in the report such as ''similar'' and ''no difference'' mean that there is no statistically significant difference ($p < .05$) between the categories being compared. Terms relating to difference, for example, ''a greater proportion'' or ''less likely to,'' indicate that the values being compared are statistically significant at the .05 level. The *t*-test, with a critical value of 1.96, was used to test all comparisons. Lack of comment regarding differences between any two estimates should not be construed as meaning that the difference was tested and found not to be statistically significant.

Multivariate analyses

Multivariate analyses were conducted on several key indicators of child health. Multiple classification analyses, a form of analysis of variance (SPSS ANOVA procedure) appropriate for use with multiple categorical variables, were employed. For each analysis, the following independent variables were included: child sex and race, parent education, family income, family structure, region of residence, metropolitan residence, number of children in the household, welfare/poverty status, and child's age. All analyses were weighted with a deflated weight, which allows the original sample size to be retained but allows estimates to be generalized to U.S. children ages 0–17 years in 1988. The deflated weight was calculated according to the following formula:

Adjusted weight = (basic annual weight) ÷ (average weight for total sample)

Multivariate analyses were conducted because several of these independent variables are highly correlated; these analyses allow the researcher to examine the relative influence of a single independent variable when others are controlled. In reporting the results of the multivariate analyses, standardized regression coefficients (betas) were examined. Independent variables contributing a statistically significant amount of variance are reported in order of decreasing magnitude of their beta coefficients. For example, in analyses predicting to child's health status (excellent with no activity limitations), the effect of parent education was significant in the presence of other independent variables (beta = .12, $p < .001$), and was larger than the effect of family income (beta = .08, $p < .001$) or race (beta = .05, $p < .001$). However, these latter variables were also significantly associated with the child's health status. For detailed results, see tables I–III.

Table I. Multiple classification analyses predicting child health status and activity limitation as a function of selected child and family characteristics

Outcomes[1]	*Excellent health with no limitation*		*Fair to poor health or limitation*	
	Beta[2]	*p*	Beta	*p*
Child age	0.03	0.016	0.06	0.000
Child sex	0.03	0.003	0.03	0.000
Race	0.05	0.000	0.03	0.031
Parental education	0.12	0.000	0.04	0.001
Family income	0.08	0.000	0.08	0.000
Family structure	0.02	0.283	0.04	0.003
Region	0.03	0.006	0.01	0.468
Metropolitan residence	0.03	0.006	0.03	0.013
Children in family	0.01	0.830	0.01	0.943
Welfare and/or poverty status	0.03	0.118	0.02	0.083
Overall F[3]	22.59	0.000	8.74	0.000
N[4]	13,558		13,558	

[1] Results of analysis of variance predicting the proportion of children with stated health and/or activity status.

[2] Betas represent standardized correlation coefficients for the main effect of each categorical independent variable adjusted for main effects of all other variables.

[3] F statistic is a measure of goodness-of-fit for multiple classification models.

[4] *N* is sample size with deflated weight.

Table II. Multiple classification analyses predicting access to health care as a function of selected child and family characteristics

Outcomes[1]	*No health insurance*		*No routine care past 2 years*		*No usual place of routine care*		*No regular provider sick care*	
	Beta[2]	*p*	Beta	*p*	Beta	*p*	Beta	*p*
Child's age	0.03	0.011	0.21	0.000	0.09	0.000	0.06	0.000
Child's sex	0.01	0.248	0.02	0.016	0.01	0.374	0.00	0.676
Race	0.08	0.000	0.02	0.205	0.04	0.000	0.11	0.000
Parental education	0.12	0.000	0.07	0.000	0.08	0.000	0.11	0.000
Family income	0.22	0.000	0.06	0.001	0.08	0.000	0.07	0.000
Family structure	0.04	0.001	0.02	0.196	0.06	0.000	0.04	0.002
Region	0.09	0.000	0.11	0.000	0.11	0.000	0.08	0.000
Metropolitan residence	0.01	0.631	0.03	0.000	0.01	0.701	0.07	0.000
Children in family	0.02	0.257	0.08	0.000	0.03	0.055	0.02	0.232
Welfare and/or poverty status	0.22	0.000	0.09	0.000	0.07	0.000	0.10	0.000
Overall F[3]	67.89	0.000	37.53	0.000	24.14	0.000	43.62	0.000
N[4]	13,436		13,381		13,449		13,493	

[1] Results of analysis of variance predicting the proportion of children lacking access to that form of health care.

[2] Betas represent standardized correlation coefficients for the main effect of each categorical independent variable adjusted for main effects of all other variables.

[3] F statistic is a measure of goodness-of-fit for multiple classification models.

[4] Sample size with deflated weight.

Table III. Multiple classification analyses predicting health indicators as a function of selected child and family characteristics

Outcomes[1]	*Rarely or never wears seatbelt*		*No dentist 2 years*		*Irregular/hate bedtime*		*Smoker in home*	
	Beta[2]	*p*	Beta	*p*	Beta	*p*	Beta	*p*
Child's age	0.20	0.000	0.32	0.000	0.17	0.000	0.03	0.019
Child's sex	0.01	0.287	0.02	0.057	0.00	0.736	0.00	0.589
Race	0.07	0.000	0.05	0.000	0.08	0.000	0.05	0.000
Parental education	0.16	0.000	0.14	0.000	0.07	0.000	0.24	0.000
Family income	0.06	0.000	0.11	0.000	0.03	0.186	0.04	0.001
Family structure	0.05	0.000	0.06	0.000	0.03	0.019	0.12	0.000
Region	0.07	0.000	0.10	0.000	0.07	0.000	0.07	0.000
Metropolitan residence	0.08	0.000	0.00	0.940	0.04	0.000	0.01	0.458
Children in family	0.09	0.000	0.05	0.000	0.05	0.000	0.06	0.000
Welfare and/or poverty status	0.04	0.006	0.07	0.000	0.04	0.009	0.08	0.000
Overall F[3]	63.89	0.000	75.42	0.000	24.91	0.000	45.68	0.000
N[4]	13,441		11,035		12,620		13,347	

[1] Results of analysis of variance predicting the proportion of children with the stated health indicator.

[2] Betas represent standardized correlation coefficients for the main effect of each categorical independent variable adjusted for main effects of all other variables.

[3] F statistic is a measure of goodness-of-fit for multiple classification models.

[4] Sample size with deflated weight.

Appendix II
Definitions of certain terms used in this report

Demographic terms

Age—The age recorded for each child is the age at last birthday. Age is recorded in single years and grouped in the following distributions: less than one year, 1–2 years, 3–4 years, 5–11 years, and 12–17 years. Data are also presented for children of all ages for whom those data are relevant.

Race—The population is divided into four racial groups: white, black, Asian (including Pacific Islander), and Native American (including Aleut and Eskimo). Race characterization is based on the respondent's description of the sample child's racial background.

Hispanic origin—Characterization of Hispanic origin is based on the respondent's description of the sample child's ancestry. Children classified as Hispanic are further subdivided into Mexican American and all other Hispanic (including Puerto Rican, Cuban, Mexican/Mexicano, Chicano, and other Hispanic).

Geographic region—For the purpose of classifying by geographic area, the States are grouped into four regions that correspond to those used by the U.S. Bureau of the Census: Northeast, Midwest, South, and West.

Metro residence—The definitions and titles of metropolitan statistical areas are established by the U.S. Office of Management and Budget with the advice of the Federal Committee on Metropolitan Statistical Areas. The metropolitan population in this report is based on MSA's as defined in the 1980 census and does not include any subsequent additions or changes. Sample members residing in MSA's are further subdivided into those who do and do not live in central cities. Non-MSA residents are sometimes characterized as children in ‘‘rural'' areas, and children in MSA, non-central cities are sometimes characterized as ‘‘suburban.''

Socioeconomic terms

Parental education—Reflects the highest grade completed by the sample child's mother or father. This information was taken from information collected about the mother and father in the basic NHIS questionnaire.

Family income—Includes income from all family members, that is, all household members related to each other by blood, adoption, or marriage. Income from all sources (e.g., wages, salaries, pensions) is included. Income is collected in narrow categories that were collapsed for use in these analyses.

Welfare/poverty status—Children in families whose annual income was below the federal poverty level for families of that size were considered ‘‘poor.'' Poor children were further subdivided into those who did and did not receive AFDC (‘‘welfare'') in the previous year. If respondents reported that the child did receive AFDC but was not below the poverty level, the child was treated as poor and on welfare in these analyses.

Child's health insurance—Classified as either covered by a private health insurance plan, covered by Medicaid (including those who had used Medicaid or who were covered by Medicaid in the past 12 months), or not covered by insurance.

Mother's age at first birth—Categorized according to the age at which mother bore her first child. These ages, reported in years, were subdivided into five groups: 17 or younger, 18–19, 20–24, 25–29, and 30 or older.

Children in family—Includes the sample child and all siblings of any type living in the household.

Family structure—Based on the relationship to the sample child of father and mother figures in the household. Eight family structure classifications are described in the text.

Mother's employment status—Ascertained on the basic NHIS. Furthermore, the labor force status of mothers under age 18 was ascertained by a question on the NHIS-CH asking if they had worked at a job or business for pay in the last 4 weeks. Mothers who had worked in this interval were classified as ‘‘in the labor force, working for pay.''

Health terms

Prenatal care—For children age 5 years and under, NHIS-CH respondents reported how many weeks pregnant (with the sample child) the child's mother was when she first saw a doctor. Mothers who saw a doctor within the first trimester (first 13 weeks) are categorized as having received ‘‘timely care,'' while mothers who saw a doctor later in the pregnancy or did not see a doctor at all are categorized as receiving ‘‘late care or none.''

Child's birthweight—Children were classified into three groups based on their weight at birth: very low birthweight (less than 1500 grams), low birthweight (1500–2500 grams), or non-low birthweight (more than 2500 grams).

Source of medical care when sick—Children were first classified according to whether there is a specific place that the child usually goes when sick or injured, and if yes, whether there is a particular person (at this place) who the child usually sees.

Chronic conditions—A condition is considered chronic if (a) the respondent indicates that the child's condition was first noticed more than 3 months before the reference period, or (b) it is a type of condition that ordinarily has a duration of more than 3 months. A complete list of these conditions can be obtained from the Division of Health Interview Statistics, National Center for Health Statistics. Children were classified either as having no chronic conditions or as having one or more such conditions.

Physician contacts and bed days—Respondents reported the number of physician contacts and bed days in both the past 2 weeks and the past year. Because short-term recall is more accurate than recall across a 12-month time span, the 2-week indicator can be multiplied by 26 to provide a more stable estimate of the number of physician contacts per year than the report of 12 months of doctor contacts. Thus the estimates in this report are derived from the 2-week indicator.

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For answers to questions about this report or for a list of reports published in these series, contact:

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