

Chapter Six

Health Status, Conditions, and Risks

This chapter describes the health status of the Nation's school-age children. The discussion is divided into four main topic areas: general health status, birth characteristics, measures of childhood health, and dental health. Data on birth characteristics were collected only for children under the age of 12. The data presented here are limited to 5-10-year-olds because of the age groups used in the analysis (5-10 years, 11-13 years, and 14-18 years).¹ Most measures of childhood health were available only for children 16 and under because the relevant survey questions were asked in the Household Youth Interview, which was completed by primary caregivers of children up to age 16. Data on blood lead levels are an exception; this measure was available for children up to 18 years.

General Health Status

Information on general health status was measured by caregiver and self-report as well as by physician assessment. Caregivers rated the health status of children under the age of 17; children 17 and 18 years of age rated their health status independently; and physicians rated the health status of all respondents who completed physical examinations. In all cases, response options were: excellent, very good, good, fair, and poor.

According to caregiver and self-reports, 73 percent of all school-age children were in very good or excellent health and 5 percent were in fair or poor health (tables D-96 and D-97). Findings were comparable for males and females. The percentage of school-age children

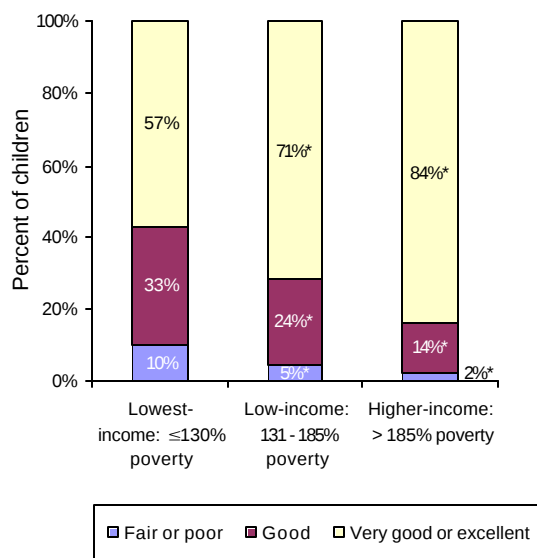
said to be in very good or excellent health decreased as children aged and the percentage said to be in fair or poor health increased. Overall, 76 percent of 5-10-year-olds were rated as being in very good or excellent health and 4 percent were rated as being in fair or poor health. Among 14-18-year-olds, the percentage of children in very good or excellent health decreased to 68 percent, while the percentage in fair or poor health increased to 7 percent (statistical significance of age-based differences not tested). The use of self-reported rather than caregiver-reported data for 17- and 18-year-olds may have contributed to this pattern.

Based on caregiver and self-reports, school-age children in the lowest-income group were *less* likely than school-age children in either of the other income groups to be in very good or excellent health and *more* likely to be in fair or poor health (figure 45). Only 57 percent of school-age children in the lowest-income group were considered to be in very good or excellent health, compared with 71 percent of children in the low-income group and 84 percent of children in the higher-income group. Moreover, 10 percent of children in the lowest-income group were considered to have fair or poor health, compared with 5 percent of children in the low-income group and 2 percent of children in the higher-income group.

Differences between the lowest-income group and the higher-income group in the percentage of children considered to be in excellent/very good health and fair/poor health were noted for all gender-and-age-specific subgroups. Differences between the lowest-income group and the low-income group varied by gender and age.

¹The sample of 11-year-olds was too small to use as a separate age group.

Figure 45—Caregiver- or self-reported general health status: School-age children



*Statistically significant difference from lowest-income group at the .05 level or better.
Source: NHANES-III, 1988-94.

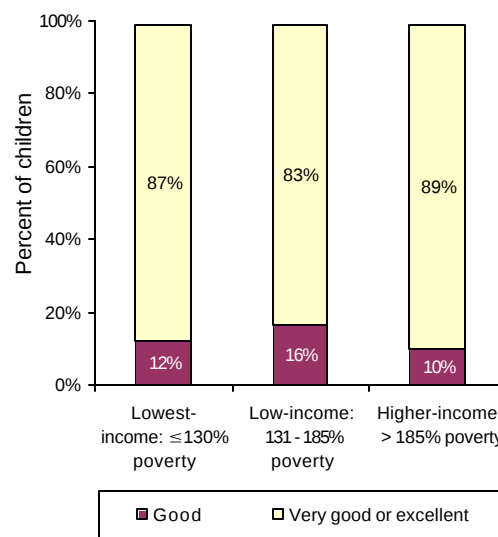
Physician assessments of general health status were consistently more positive than caregiver and self-assessments. Overall, physicians found 87 percent of school-age children to be in very good or excellent health and only 1 percent to be in fair or poor health (tables D-98 and D-99). Physician-assessed health status did not decrease as children aged, and physician assessments revealed no significant differences in general health status along income lines (figure 46).

Birth Characteristics

For children under the age of 12, NHANES-III collected data on a number of characteristics of both the mother and child at the time of birth. As noted previously, these data were tabulated for 5-10-year-olds. Characteristics considered include maternal age, maternal smoking status during pregnancy, birthweight (as reported by parent or caregiver), and receipt of neonatal intensive care services.

In general, birth characteristics of 5-10-year-old children in the lowest-income group were

Figure 46—Physician-assessed general health status: School-age children

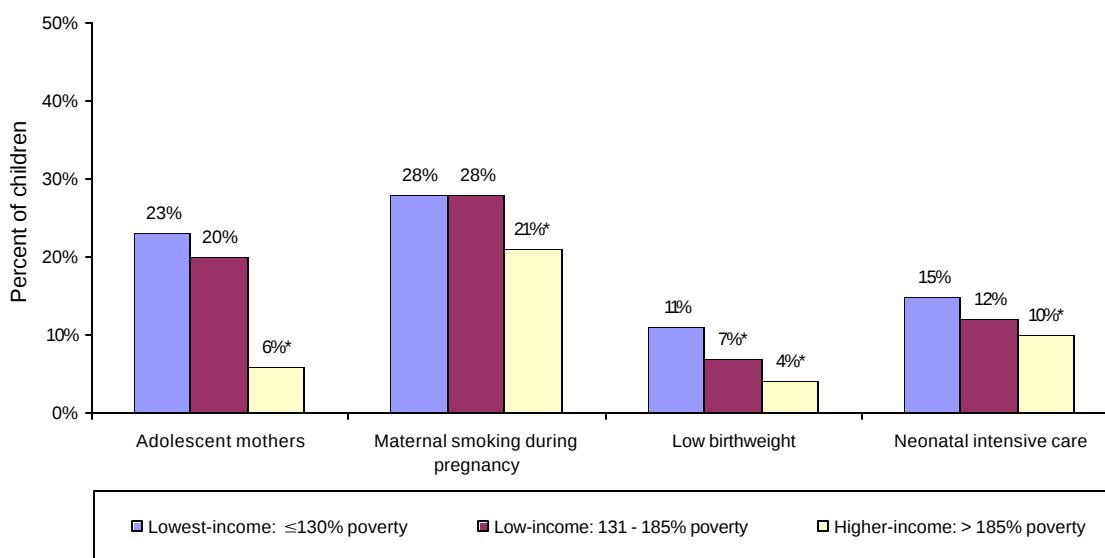


No statistically significant differences between income groups. Percent with “fair or poor” health is not shown because point estimate is statistically unreliable for the low-income group.
Source: NHANES-III, 1988-94.

comparable to those of children in the low-income group (figure 47 and table D-100). The only significant difference observed between these two groups was a difference in reported birthweight. According to caregiver reports, children in the lowest-income group had a lower mean birthweight than those in the low-income group. The reported prevalence of low birthweight (less than 2,500 gm. or 5.5 pounds) was also greater among the lowest-income group, in comparison with the low-income group (11% vs. 7%).

In comparison with the higher-income group, birth characteristics of 5-10-year-old children in the lowest-income group were generally less favorable. Children in the lowest-income group were born to younger mothers, on average, than children in the higher-income group and were more likely to have been born to an adolescent mother (23% vs. 6%). In addition, mothers of 28 percent of 5-10-year-old children in the lowest-income group smoked during the pregnancy, compared with 21 percent of mothers of children in the higher-income group. Based on caregiver reports, children in the lowest-income

Figure 47—Birth characteristics of 5-10 year olds



*Statistically significant difference from lowest-income group at the .05 level or better.
Source: NHANES-III, 1988-94.

group had a lower mean birthweight than children in the higher-income group and had a prevalence of low birthweight that was 2.75 times greater (11% vs. 4%). A similar pattern was noted for the reported prevalence of very-low birthweight (less than 1,500 gm or 3.3 pounds). Finally, 15 percent of 5-10-year-olds in the lowest-income group were reportedly hospitalized in neonatal intensive care units (NICUs) at the time of their birth, compared with 10 percent of 5-10-year-olds in the higher-income group.

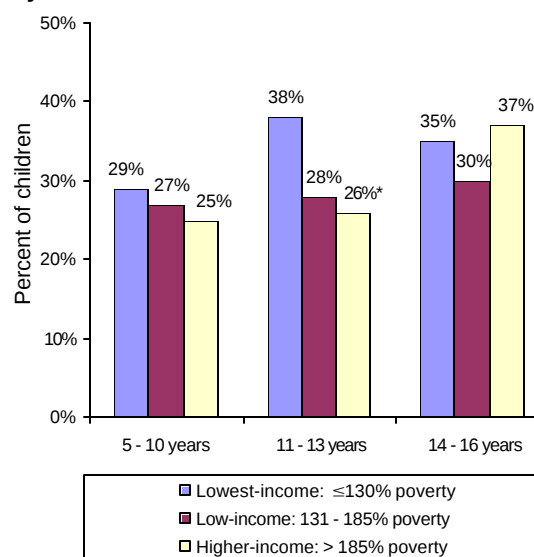
Measures of Childhood Health

This section presents data on a variety of measures related to childhood health. Topics covered include hospitalizations since birth, accidents, injuries, and poisonings requiring medical attention, chronic respiratory conditions, and lead poisoning. Data on lead poisoning include estimates of the prevalence of elevated blood lead levels, based on laboratory measurements. All other data were reported by parents or other caregivers. With the exception of data on measured blood lead levels, data were collected only for children 5-16 years of age.

Hospitalizations Since Birth

Thirty-one percent of 5-16-year-olds had been hospitalized at least once since birth (table D-101). There were no significant differences between income groups in the prevalence of hospitalizations, overall, or for 5-10-year-olds or 14-16-year-olds (figure 48). Among 11-13-year-

Figure 48—Percent of 5-16-year-olds with hospital stays since birth



*Statistically significant difference from lowest-income group at the .05 level or better.
Source: NHANES-III, 1988-94.

olds, however, children in the lowest-income group were more likely than those in the higher-income group to have been hospitalized (38% vs. 26%). This difference was concentrated among males. Among 11-13-year-old males, the prevalence of hospitalization was 68 percent higher for the lowest-income group, relative to the higher-income group (47% vs. 28%) (table D-101).

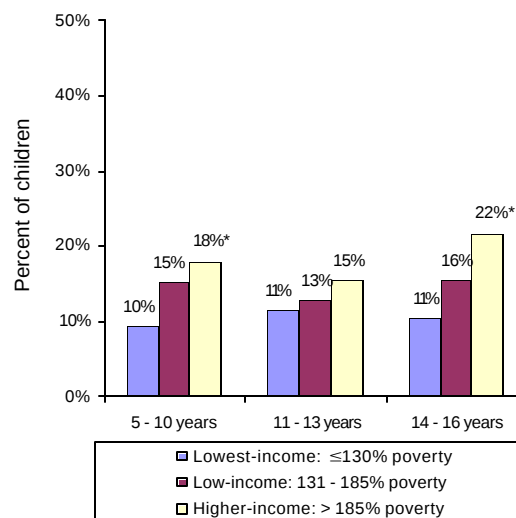
Accidents, Injuries, and Poisonings Requiring Medical Attention

Caregivers were asked whether children had experienced an accident, injury, or poisoning, anytime during the preceding 12 months, that was serious enough to require medical attention. Overall, 15 percent of all 5-16-year-olds had had at least one such medical emergency in the previous 12 months (table D-102). There were no significant differences between the lowest-income group and the low-income group on this measure. In comparison with the higher-income group, however, children in the lowest-income group were significantly less likely to have experienced a medical emergency (10% vs. 19%). This difference was noted for both males and females (table D-102), and was concentrated among 5-10-year-olds and 14-16-year olds (figure 49). The observed differences may reflect differences in child behavior/response at the time of the incident, parental response, and/or the relative severity of a child's condition.

Chronic Respiratory Conditions

Parents and caregivers of children up to the age of 16 were asked whether a health professional had ever told them that their child had asthma, chronic bronchitis, or hay fever. Overall, 11 percent of children were reported to have asthma and 5 percent were reported to have chronic bronchitis (tables D-103 and D-104). There were no significant differences between income-groups in the prevalence of either of these chronic conditions (figure 50).

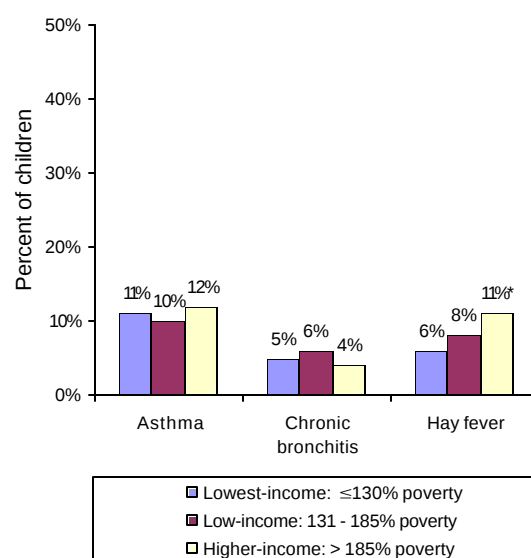
Figure 49—Percent of 5-16-year-olds with accident, injury, or poisoning requiring medical attention in the past 12 months



*Statistically significant difference from lowest-income group at the .05 level or better.
Source: NHANES-III, 1988-94.

The reported prevalence of hay fever was 9 percent, overall (table D-105). Children in the lowest-income group were significantly less likely to suffer from this problem, based on caregiver reports, than children in the higher-

Figure 50—Percent of 5-16-year-olds with chronic respiratory conditions



*Statistically significant difference from lowest-income group at the .05 level or better.
Source: NHANES-III, 1988-94.

income group (6% vs. 11%) (figure 50). This was true for both males and females (table D-105).

Lead Poisoning

Parents and caregivers of children up to the age of 16 were asked whether the child had been screened for lead poisoning. Caregivers of children who had been screened were asked whether the results indicated that the child had “high lead or lead poisoning.”

Overall, fewer than 1 in 10 children under the age of 17 had been screened for lead poisoning (table D-106). The reported prevalence of lead screening varied substantially between income groups. Children in the lowest-income group were significantly more likely than children in either the low-income group or the higher-income group to have been screened for lead poisoning (14% vs. 9% and 5%). Significant differences between the lowest-income group and the higher-income group were noted for both males and females and for all but one gender-and-age-specific subgroup. Significant differences between the lowest-income group and the low-income group were noted for 5-10-year-olds and 11-13-year-olds, but not for 14-16-year-olds.

According to caregiver reports, the percentage of 5-16-year-old children who were found to have lead poisoning at any point in time was very low (0 to 1 percent) for all three income groups (table D-107). Nonetheless, children in the lowest-income group were significantly more likely than children in either the low-income group or the higher-income group to have been diagnosed with lead poisoning (point estimates for the low-income and higher-income groups are not statistically reliable because of low prevalence).

NHANES-III measured blood lead levels for all school-age children, including 17- and 18-year-olds. These data indicate that the prevalence of

high levels of blood lead (indicative of lead poisoning) among school-age children was somewhat greater than suggested by caregiver reports. Overall, the prevalence of excessive blood lead levels among school-age children was 2 percent (table D-108). The prevalence of high blood lead levels was somewhat greater among males than females and consistently decreased with age (statistical significance of gender- and age-based differences not tested). Moreover, among children under the age of 14, the prevalence of high levels of blood lead was significantly greater in the lowest-income group than in either of the other income groups.

The problem of lead poisoning has been declining sharply in recent years. Between NHANES-II (1976 and 1980) and the first phase of the NHANES-III study (1988-91), the overall prevalence of lead poisoning in the population as a whole decreased from 77.8 percent to 4.4 percent (CDC, 1997). Moreover, between Phase I (1988-91) and Phase II (1991-94) of NHANES-III, the overall prevalence of high blood lead levels continued to decline, with percentage point decreases generally being greater among groups with the highest prevalence of elevated lead levels during Phase I (CDC, 1997).

Tables D-109 and D-110 present data on the prevalence of elevated blood lead levels among school-age children in Phase I and Phase II of the NHANES-III data collection. (The data reported in Table D-108 reflect the complete NHANES-III sample.) The overall prevalence of elevated blood lead levels among school-age children decreased by 48 percent between Phase I and Phase II (2.7% vs. 1.4%). For children in the lowest-income group, the prevalence of elevated blood lead levels in school-age children decreased from 6.6 percent in Phase I to 3.0 percent in Phase II (statistical significance of phase-based difference not tested). At both points in time, the prevalence of elevated blood

lead levels was significantly greater in the lowest-income group than in either the low-income or higher-income groups; however, point estimates for the two other income groups were statistically unreliable because of low prevalence.

Dental Health

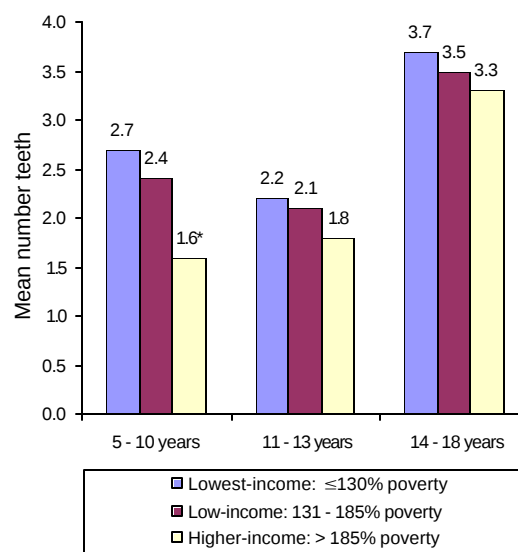
All NHANES-III respondents who completed the physical examination received a dental exam, in which all decayed, missing, and filled teeth were charted. Overall, school-age children (5-18-year-olds) had an average of 2.5 missing, decayed, or filled teeth (table D-111). Findings were similar for males and females and, as expected, the mean number of decayed, missing, and filled teeth increased with age (statistical significance of age-based differences not tested).

School-age children in the lowest-income and low-income groups had comparable dental health status. In comparison with children in the higher-income group, however, children in the lowest-income group had more decayed, missing, and filled teeth (2.9, on average, vs. 2.3). This difference was concentrated among 5-10-year-olds. In this age group, the lowest-income children had 2.7 missing, decayed, or filled teeth, compared with 1.6 for children in the higher-income group (figure 51). This difference was noted for both males and females (table D-111).

Visits to a Dentist or Dental Hygienist

Overall, 92 percent of all school-age children had visited a dentist or dental hygienist at least once (table D-112). Results for males and females were comparable, but the prevalence of dental visits was notably lower among 5-10-year-olds than among the two older age groups (87% vs. 95%) (statistical significance of age-based differences not tested).

Figure 51—Mean number of decayed, missing, or filled teeth: School-age children

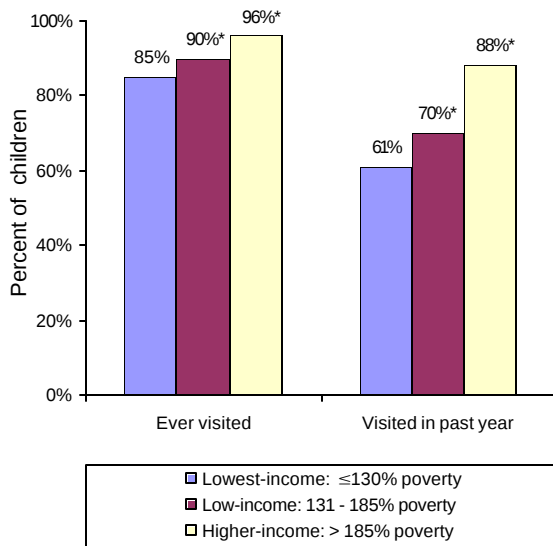


*Statistically significant difference from lowest-income group at the .05 level or better.
Source: NHANES-III, 1988-94.

Although most children in all three income groups had completed at least one dental visit, children in the lowest-income group were less likely to have visited a dentist or hygienist than children in either of the other income groups (85% vs. 90% and 96%) (figure 52). The difference between the lowest-income and higher-income groups was observed for both males and females and for all but one gender-and-age-specific subgroup (table D-112). The difference between the lowest-income and low-income groups was observed only for males and was concentrated among 11-13-year-olds and 14-18-year-olds.

Differences between the lowest-income group and the two other income groups were also observed for the prevalence of dental visits *within the past year*. Sixty-one percent of children in the lowest-income group had had a dental visit during the past year, compared with 70 percent of children in the low-income group and 88 percent of children in the higher-income group (figure 52 and table D-113).

Figure 52—Percent of school-age children who have visited a dentist or dental hygienist



*Statistically significant difference from lowest-income group at the .05 level or better.
Source: NHANES-III, 1988-94.

These between-group differences were noted for both males and females. The difference between the lowest- and higher-income groups was observed for all gender-and-age-specific subgroups. The difference between the lowest-income group and the low-income group was concentrated among the oldest males and the youngest females.