

1995 Missouri Pediatric Nutrition Surveillance System

Executive Summary

The Pediatric Nutrition Surveillance System (PedNSS) is a national system established and maintained by the Division of Nutrition, Centers for Disease Control and Prevention (CDC). The purpose of this surveillance system is to provide major nutrition-related data on high-risk infants, children and adolescents from birth to 18 years of age. The surveillance population is characterized by the prevalence and trends of the following nutritional status indicators: 1) short stature 2) underweight 3) overweight 4) anemia and 5) low birth weight. In addition, the prevalence rate of the initiation and duration of breastfeeding of infants up to 6 months of age is reported.

The Missouri PedNSS is composed of data obtained exclusively from infants and children participating in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Thus, this report describes the nutritional status of low-income children in Missouri from birth through 4 years of age during the calendar year 1995. A total of 217,658 records received from 193 WIC clinics sites throughout Missouri are included in this report.

Sociodemographic Characteristics

The 1995 surveillance population in Missouri consisted primarily of two ethnic groups White (70.8%) and Black (25.6%), with Hispanics comprising only 2.1%, Asians, 0.8%, American Indians, 0.1%, and All Others, 0.6%. Children under 1 year of age represented the largest group, followed by 3 to 4-year-olds, children 12 to 23 months and those aged 24 to 35 months (33.6, 26.6, 23.0 and 16.9%, respectively).

Nutritional Status Indicators

Low Birth Weight

Overall, 9.4% of the children were of low birth weight (LBW), weighing less than 2500 grams, or 5.5 pounds, at birth. The highest rate was reported among Black (13.7%) and the lowest among Hispanic children (7.3%).

Short Stature

Short stature is defined as length- or height-for-age below the fifth percentile of the reference height of children of the same age and sex. This is used as an indication of chronic undernutrition. The overall prevalence rate for short stature was 8.6%, with the highest rate found among infants less than 1 year of age (10.5%) and the lowest among 2 to 4-year-olds (6.8%). Among ethnic groups, the highest prevalence of short stature (9.9%) was seen in Black children.

Underweight

Underweight or thinness, defined as below the fifth percentile of weight-for-height of the reference population, is often associated with recent or chronic disease. The expected rate of low weight-for-height in the general population under normal conditions, is 5% or lower. In 1995, the prevalence rate of underweight children in the Missouri surveillance population was 2.2%, suggesting that this is not a major public health problem in the population monitored.

Overweight

Overweight is defined as weight-for-height above the 95th percentile of the reference population. The overall prevalence rate of overweight among Missouri children was 7.8%, with the highest prevalence among 1-year-olds (12.1%) and the lowest (6.1%) among the 2 to 4-year-olds.

Anthropometric Trends

Over the last six years the percentage of LBW has increased, with a slow and gradual rate of increase since 1992 of 0.1 percent each year. Overall, the increase in LBW has amounted to a total of 1.6 percentage points, representing a 21% increase from the 7.8 rate in 1990. Between 1990 and 1995, the rate for short stature dropped 30%, with more rapid rates of decline since 1992. The prevalence of short stature was 7% lower in 1995 than in 1994. There is a sharp peak of 4% in the prevalence of underweight children in 1992 followed by subsequent declines in rate. The prevalence of overweight has remained below 10.0%, with considerably lower rates since 1992. The average rate in the last four years is approximately 7.6%.

Anemia (Low hemoglobin)

Anemia is defined as hemoglobin and/or hematocrit levels below the 5th percentile values of a reference population. The prevalence rate of anemia in Missouri was 23.8%, with the highest rate seen among the 2 to 4-year-old children (24.5%) and the lowest among those under 1 year of age (21.6%). Across ethnic groups, Black children (33.5%) had the highest rate. Overall, there is a reduction of approximately 20% in the proportion of children with anemia since 1990 when the rate was 29.6%.

Initiation and Duration of Breastfeeding

Overall, only 39.2% of infants in the surveillance population were reported to have ever been breastfed. The lowest prevalence was among Black (22.4%) while 59.0% of Hispanic infants were ever breastfed. The greatest percentage decrease in duration of breastfeeding prevalence occurred between one+ week and one+ month old infants (39.2% to 29.6%). The overall prevalence of the duration of breastfeeding of 3 months was 25.9%, with the highest rate among Hispanic infants of 44.5% and the lowest among Black infants of 16.2%.